EHPA Position Paper

EHPA position on the final report of the Ecodesign preparatory study for Building Automation and Control Systems (BACS) – ENER Lot 38

EHPA would like to thank the European Commission and the study team for the work already carried out and welcome the opportunity given to comment on the recommendations part of the study's findings. Please find below EHPA positions.

Executive summary

We believe that future clarifications and explanations are necessary before being able to further comments on options. The study is not mature and clear enough to lead to meaningful, understandable, realistic, feasible, measurable, and verifiable policy options. It is EHPA understanding that built-in TBS are not in the scope of this study. EHPA does not believe that a horizontal approach for HVAC BACS is appropriate. Finally, EHPA recommends not defining KPI for every BACS level since it depends on the scope.

CHAPTER 1: Ecodesign Regulation

Scope

EHPA would like some clarifications regarding the scope of Lot 38. Reading the final report tasks 1 and 7, the scope is still not clear. Three examples:

- We would like some clarification on the definition of the two types of BACS (installed and packaged) but also clarification on the TBS. For instance, looking at the specific BACS energy performance limits for installed products (page 237), it is stated that "candidate products are either any installed BACS or installed BACS products differentiated by application". EHPA would like to understand the difference here, this with clear examples to help our understanding.
- It is EHPA understanding that built-in TBS are not in the scope of this study. However, the potential product candidates for specific minimum functionality requirements (page 223) are not clear.
- As explained in page 217 of the final report, "in many cases BACS functions are already bundled in TBS components (heat pumps, gas boilers, etc.) by the manufacturer for the convenience of the installer. This is often the case for smaller TBS (heat pumps, gas boilers, etc.) and consequently they are often already subject to existing Ecodesign Regulation applied to the TBS." EHPA recommends avoiding double regulations and suggests some alternative approaches below.

Horizontal versus Vertical Approach

EHPA does not believe that a horizontal approach for HVAC BACS is appropriate. HVAC applications and functions are very diverse; therefore, we have doubts on the proposal for a horizontal approach. Furthermore, the scope of EN 15232 is very broad and the scope of the study is still not clear. A case-by-

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case approach should be taken as products covered by this preparatory study have different needs and applications. Furthermore, in the draft regulation for Lot 1 and the revised regulation for Lot 6, there are some products that have BACS functions incorporated. Double regulation should be avoided. Additionally, we would like to recall that the consultants stated that EN 15232 is only describing the BACS system with air (ventilation) and water (hydronic) systems. It cannot be applied to the refrigerant circuit.

Therefore, EHPA recommends keeping BACS in EPBD which is the natural way to stimulate the market rather than the Ecodesign regulation. On the other hand, if the European Commission pursues in its ambition to regulate BACS with the Ecodesign requirements, after throughout study, impact assessment, then EHPA would strongly recommend a vertical approach to avoid double regulation. Each lot should have its own requirements.

For instance, Lot 1 is the best way to promote the use of room temperature controller and room temperature schedulers. First, energy efficiency of heating appliances is directly linked to the use of temperature control systems: actuators, external probe, room temperature controllers, room temperature schedulers. So heating appliances and temperature control systems have to be covered in the same Lot under Ecodesign regulation. Secondly, EN 15232 oversimplifies and does not take into account the real interaction between the heat generator and the controller. Finally, we should distinguish the level of capability needed to install the system. In lot 1 qualified installers know the products very well through the definition of temperature controls and of temperature controls classes. So, they can easily on a large scale combine them to space heater in order to upgrade the seasonal space heating energy efficiency. In contrast, the installation of more sophisticated devices as BACS will require engineers for building the system architecture, programming, and commissioning.

Open standards, proprietary information & communication protocols:

EHPA would like to highlight some key issues regarding information requirements on the communication protocols.

On page 236, it is written that “in the case that a proprietary communication protocol is used a clear reference to the manufacturer website should be made where all relevant information can be found”. Manufacturers should not be asked to disclose proprietary information, this is commercially sensitive information. BACS can offer an interface/gateway (for instance, MODBUS/BACNET) for the BACS control to communicate with the BMS/BEMS system. It is unacceptable to ask manufacturers to disclose proprietary information and protocols behind this. For this same reason, we cannot grant immediate access to the TBS protocol.

Finally, EHPA does not agree with the creation of a list of open protocols approved by the industry, because this limits innovation and creates a situation of monopoly. Legislation should not affect innovations and has to be based on a “technology neutral approach”. Open communication does not guaranty interoperability. It can be done in many ways, hence we should not prescribe and limit the types of protocols. EHPA also has concerns that this would allow BMS/BEMS to override equipment TBS controls, which could not only lead to inefficiency and non-optimum performance of equipment, but will also have negative impacts on the lifetime and safety of the appliance. This should be clearly avoided. BACS should not interfere in the logic of the TBS. Communication channel between the appliance and the BMS/BEMS is possible via a standardized channel as already suggested e.g. by gateway, API or other forms of communication that will not jeopardize the performance, lifetime, and safety of the appliance.

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Internal power consumption of packaged BACS products to be reported

It is unclear how the internal power consumption of components can be measured, because they are often part of a complete product or of a system.

Compatibility & Interoperability:

EHPA does not understand the difference between compatibility with BACS system and interoperability. Additionally, we do not understand why the study team recommended both specific minimum functionality requirements and generic information requirements for compatibility with BACS system and interoperability.

Regarding the request to propose an open fallback solution (that can run on local servers) should be provided for a local server installed on the dedicated LAN or VLAN of the building: HVAC equipment manufacturers are not responsible for the hardware infrastructures in the building. This will increase drastically the servers' costs and infrastructures.

Smart grid requirements:

EHPA believes that it is too early to define smart grid requirements since the market is not so mature yet and smart grids are still under development.

Material efficiency:

EHPA highly recommends that the material efficiency requirements follow the approach already indicated used in other product lots. In this sense, we do not understand the approach on the availability of spare parts. The European Commission should consider the options already on the table in other Lots.

EHPA does not understand the additional proposal on minimum service life expectancy (MSLE) and the reasoning behind this additional requirement.

Finally, requirements on mandatory warranties have been proposed by the study team. However, we would like to highlight that there are already existing legislations on commercial and legal warranties at EU level, thus Ecodesign is not the appropriate framework to consider such option.

Since the scope and definitions are still not clear, EHPA believes that all these considerations should be put aside for the time being.

CHAPTER 2: Energy Labelling Regulation

In the final report, the study team proposed to update the energy label for space heaters, water heaters and solid fuel boilers and include more BACS functions within these regulations. It is said that we should align the functions contained in EN 15232 with the updated regulation. However, the study is not mature enough to discuss about an energy label for BACS. As explained previously, the scope and definitions are not clear, it is too early to discuss about a possible energy label. Furthermore, EHPA believes that an energy label will not be appropriate for BACS because their energy consumption is of some orders of magnitude smaller than that of the equipment they control and monitor. This echoes the comments pointed about by many stakeholders, including Member States, during the Consultation Forum.