POSITION PAPER

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EHPA feedback on Ecodesign and Energy Labelling for space and combination heaters, and Ecodesign and Energy Labelling for water heaters and storage tanks

Introduction

This paper sets out the European Heat Pump Association's (**EHPA**) feedback on the draft Ecodesign and Energy Labelling Regulations for space and combination heaters, as well as for water heaters and storage tanks (hereinafter referred to as ***Lots 1 and 2***).

EHPA supports the Commission's efforts to modernise the regulatory framework of Lots 1 and 2 in order to improve energy performance of heaters, strengthen consumer accessibility to information and better reflect technological progress and the EU's climate and energy objectives. EHPA also considers that the revision of Lots 1 and 2 represents an important opportunity for the Commission to advance its broader simplification and competitiveness agenda - particularly in the context of the upcoming Energy Product Omnibus - while supporting the roll-out of heat pumps as a cornerstone technology for the decarbonisation of heating and cooling sector.

EHPA considers that the proposed revisions contain several positive elements and reflect an effort from the Commission to update the existing framework and, to a certain extent, support heat pumps affordability and technological progress. At the same time, some aspects of the draft raise concerns. In particular, the interaction between new ecodesign requirements, revised testing and calculation methods, and additional conformity assessment obligations warrants careful consideration in order to avoid unintended effects on implementation, compliance costs and time to market, which could ultimately **undermine**, rather than improve, **the affordability of heat pump technologies**.

EHPA believes that the success of the revised framework will depend on its ability to remain focused on what is essential: delivering measurable energy and climate benefits while ensuring that rules can be implemented efficiently and consistently across Member States. This requires clear legal drafting, proportionate obligations and realistic timelines that reflect how products are developed, tested and placed on the market in practice

On this basis, and in a spirit of **constructive** cooperation with the Commission, EHPA puts forward a set of targeted, high-level recommendations to support the finalisation of the draft acts. **Detailed technical comments**, including request for clarifications, proposed textual improvements and the identification of typos, are provided in a dedicated annex attached to this paper.

Key recommendations

⇒ FOR LOT 1

1) Entry into force of the requirements

EHPA welcomes the Commission's proposal to adopt a phased entry into force of the different requirements scheduled through a three-tiers. However, the feasibility of some of the proposed timelines vary depending on the specific requirement concerned, and additional time may be necessary for certain elements. EHPA's comments on entry into force are therefore provided on a topic-by-topic basis.

Finally, for reasons of legal certainty and effective enforcement of the requirements, EHPA recommends clarifying the defintion of "new models" and specify that those one are the models registered in EPREL for the first time.

2) Minimum energy performance requirements

EHPA welcomes the effort of the Commission's as set out in draft Recital No. 10 of the revised Lot 1, to improve the affordability of heat pump systems and to support technological progress by lowering minimum energy performance requirements. Such minimum energy efficiency threshold would also open the door to innovation.

Beyond those considerations, it is important to recall that affordability is determined by a combination of factors, including both upfront costs of the heat pump system, such as product and installation costs, and running costs, notably electricity prices, levies, and taxation. Achieving meaningful improvements in heat pump affordability therefore requires different policy actions across these different dimensions, on which EHPA is actively engaged.

With regard to upfront costs, EHPA would like to highlight that lowering minimum energy performance requirements alone is not sufficient to improve affordability if this measure is accompanied by the introduction of new regulatory obligations. In particular, new Ecodesign requirements, such as the mandatory third-party conformity assessment, and the new testing methods for heat pumps (such as compensation method or the sound power level test) are expected to increase compliance and certification costs for manufacturers. As a result, any potential cost reductions associated with lower performance thresholds are likely to be offset by these additional requirements. Moreover, changes to minimum energy performance requirements might also have unintended effects on the energy label of these products and consequently may affect the national authorisites and consumers' perception, which recognize heat pumps as highly energy-efficient technologies.

Finally, EHPA underlines that heat pump affordability and market uptake are significantly influenced by national policy frameworks, in particular by national support schemes. These schemes define eligibility criteria for financial support, often based on energy performance thresholds, energy efficiency classes or other technical requirements. Where changes introduced at EU level are not consistently reflected in national eligibility criteria, heat pumps that fully comply with EU requirements may nevertheless fail to qualify for financial support.

In such cases, the expected impact of revised EU requirements on affordability and market uptake would remain limited, as purchasing decisions continue to be driven primarily by national policy conditions rather than by EU-level regulatory compliance. A balanced and

comprehensive assessment of the proposed requirements, taking into account their interaction with national support schemes, is therefore essential to ensure that affordability, competitiveness and market uptake objectives are achieved without unintended consequences.

2) Third-party conformity assessment

Before turning to specific recommendations, EHPA wishes to highlight a number of structural shortcomings in the proposed approach to third-party conformity assessment (TPCA) that risk undermining its effectiveness and proportionality.

While EHPA is not opposed or in favour to TPCA as such, believes that its added value depends on its ability to genuinely harmonise conformity assessment requirements across Member States. In the absence of such harmonisation, **TPCA risks becoming an additional compliance layer**, particularly where national authorities continue to apply parallel or supplementary testing requirements.

This risk is compounded by the lack of clarity in the draft regarding the scope of operating conditions subject to TPCA, notably whether testing would be required across all climates, applications, cooling modes and auxiliary functions. Without a clear definiton in the legal text, manufacturers may be compelled to test the full performance matrix, leading to disproportionate increases in testing time, costs and burden on laboratory capacity. This is the case particular for the high number of test points foreseen under certain conformity assessment modules, notably Module B, which could require products to remain in laboratories for extended periods.

These issues are further amplified by the proposed extension of TPCA to heaters up to 400 kW, a threshold that captures an excessively broad and heterogeneous range of products intended for fundamentally different applications, including large commercial systems for which testing infrastructure is not currently in place. Extending the scope to cover such products would therefore significantly increase compliance costs and regulatory complexity .

Finally, the proposed implementation timeline - with a two-tier approach applying TPCA from +48 months to heat pumps, hybrid heat pumps, electric boilers and cogeneration heaters up to 400 kW to new models first placed on the market by or after four years after entry into force of this regulation, and from +72 months to all heaters up to 400 kW, including fuel boilers - does not sufficiently take into account the time needed to develop, adapt to and gain experience with the new testing methods, nor the time required for notified bodies and laboratories to adapt to the new testing framework. This raises serious concerns regarding the adequacy of the proposed transition period.

EHPA recommendations:

1. **Considering all the above, EHPA reiterates its long-standing position that the scope of TPCA should be limited to products below 70 kW**. For unit > 70 kW internal design control or management system (self-declaration) should be set.
2. EHPA further recommends that TPCA testing requirements are revised **either**:
    a. To be clearly limited to what is strictly necessary for compliance verification, **with a focus on mandatory applications only**, avoiding systematic testing of all climates, applications and auxiliary modes. **In particular only the below listed performance should be in the scope of TPCA:**
        i. Space heating: only average climate mandatory application (LT for LT heat pump and MT for others) without auxiliary modes;

ii. Acoustics: test only under heating mode for the mandatory application or.

b. aligning the TPCA to the **Heat Pump Keymark European** certification system to define the points to be tested on heat pumps and hybrid heat pumps, as well as the test procedures and the inspections procedure.

3. Taking into account the new ecodesign requirements and the introduction of new testing methods, TPCA **should apply for both new and existing models from 72 months after the entry into force of Lot 1.** This timeline would adequately reflect the time needed for manufacturers and notified bodies to develop, adapt to and gain experience with the new regulatory requirements foreseen in the revised LOT 1.

3) Self-monitoring requirements

While EHPA welcomes the fact that several elements raised in previous feedback have been taken into account, such as limiting the scope to heaters with a standard-rated heat output of 70 kW or less, some requirements could still be removed in the interest of simplification and to avoid unnecessary burden on manufacturers. **EHPA therefore recommends:**

1. **thermal energy output determination should be accepted;** therefore, Annex II, Section 10.2, point (b) last sentence should be read as follow: "*b) the thermal energy output, meaning space heating for all heaters and also space cooling for reversible heaters; ~~the thermal energy output shall be measured~~*"**;**
2. **energy efficiency and number of on/off cycles should be excluded from the self-monitoring parameters, as these data are irrelevant for consumers.** In particular, calculated efficiency values are not suitable for display, as they depend on assumptions such as the conversion coefficient and system boundaries, which vary between installations and users and may therefore lead to confusion. Moreover, performance data referring to the complete heating system cannot be reliably collected where auxiliary components (such as additional heaters, pumps or storage devices) are not controlled by the heat pump. Self-monitoring requirements should therefore be limited to parameters that are directly measured within the heat pump unit itself. Finally, the display of instantaneous or high-frequency values is not meaningful for slow-acting heating systems and would impose disproportionate costs related to data processing and storage.**.** Therefore, Annex II, Section 10.2 should be amended accordingly, in particular by deleting points (d) and (e);
3. For the required data storage: Hourly data shouldn't be required over 24 months. Therefore Section 10.4.1 should be amended as follows: "*average values of any ~~hour,~~ day, week, month and year, covering the period of at least the previous 24 months or the period since the*heater installation, whichever period is shorter".
4. **access to self-monitoring data by third parties should be aligned with the EU Data Act and the Cyber Resilience Act.** In order to guarantee cybersecurity of the system, access should be kept as limited as possible. EHPA therefore recommends restricting mandatory access for third parties to market surveillance authorities only, or clarifying that access for other third parties may be granted exclusively by the end-user**.**

4) Information requirements, list of spare parts & repairability

EHPA supports the alignment between Ecodesign and Energy Labelling information requirements and underlines the importance of ensuring that all part-load information is made available via EPREL, in order to support data availability for the purposes of the EPBD. That

said, specific concerns arise with regard to the requirement in Annex II, Section 6.7 to provide seasonal performance data for all eco and low-noise modes. This requirement is disproportionate to its added value, as heat pumps can feature multiple low-noise modes, and compliance would significantly increase the testing burden. Data requirements for these modes should therefore be limited accordingly.

EHPA also welcomes the Commission's objective to ensure the timely availability of spare parts by setting a delivery obligation of 15 working days. However, as currently drafted, Annex II, Section 5.3 establishes an absolute requirement that does not provide for any derogation or flexibility, irrespective of objectively justifiable circumstances. From a legal and practical perspective, the absence of an exception mechanism risks imposing obligations that may be impossible to fulfil in certain situations that are beyond the direct control of manufacturers. In particular, the pronounced seasonality of the heating market may lead to temporary and unavoidable supply-chain constraints during peak demand periods. To ensure proportionality and effective enforceability, **the revised legal text should therefore explicitly include a narrowly defined and duly justified exception**. Such provision should allow manufacturers, in substantiated cases, additional time to deliver spare parts.

Furthermore, **the list of spare parts** proposed in the revised text **is excessively broad** as it includes non-critical parts for the functioning of the unit. Requiring parts like gaskets, seals, buttons, knobs to remain in stock for 10 years is a disproportionate ask and can easily result in increase in waste if never used. This would significantly increase costs for manufacturers and, ultimately, for consumers, negatively affecting heat pump affordability. **EHPA therefore recommends to mantain only critical parts and delete from the Annex II Section 5.2, lett. (e), (i), and from lett (l), to (t) - with the exception of point (n), which should be retained in the final text.**

Moreover, price information should not be published on the free access website EHPA therefore suggest to delete this requirements in order to limit access to those sensitive information.

Finally, EHPA understands the proposed requirements to ensure that repair and maintenance information is available to all relevant parties. However, a uniform access regime for all spare parts does not adequately reflect the technical and safety risks associated with certain components, notably those forming part of the refrigerant circuit in heat pump systems, especially where flammable refrigerants are used. Therefore, EHPA highly recommends **that, especially for the spare parts where safety consideration and related legal responsibility are involved, the manufacturer should be able to:**

- **require additional, product-specific safety training or certification prior to granting access;**
- **restrict access to such spare parts to appropriately qualified personnel; and**
- **ensure that replacement or repair of these parts may take place only in specialised or authorised service shops.**

Accordingly, Annex II Section 5.2 and/or 5.4 should be amended accordingly to differentiate between safety-related and non-safety-related spare parts. Especially for the spare parts the texts should clarify that: "*Manufacturers retain the right to select the technical personnel authorized to perform repair or maintenance on the equipment, and where relevant, to limit access to certain spare parts, including by making such parts available only through specialised or authorised service shops. Manufacturers may therefore impose additional technical, safety, or qualification requirements beyond those specified in this legal text".*

5) Digitalization of the product information requirements

In the context of the broader simplification wave expected under the upcoming Energy Product Omnibus, and with the objective of streamlining regulatory requirements while enabling greater digitalization of product information, EHPA recommends that the draft delegated acts for Lot 1 and Lot 2 would already reflect this trend. In particular, the requirement for a "*user manual included with the product*", as referred to in Annex II, Section 6, point (1)(b), should be replaced by a requirement for a "**user manual**", thereby explicitly allowing the manual to be provided in electronic format.

6) Compensation method

EHPA expresses concerns regarding the proposed entry into force timeline for the compensation method as set out in Article 12 and Recital (27) as the new methods is still under development, and its feasibility will depend on the results of the progress and outcome of the Horizon Project undertaken by TC113WG8.

Therefore, EHPA believes that its **implementation should only start once the relevant CEN standardisation work is formally completed and sufficient time has been granted for its practical implementation. Therefore, following the official adoption of the standard, EHPA recommends that an appropriate transition period be foreseen to allow manufacturers to adapt the new testing method accordingly (for example, the implementation of the compensation method could start from Tier 3).**

This is particularly important for products above certain capacity ranges, where business models differ and applicability remains uncertain, and for more complex products such as multi-stage units, which require longer development and validation cycles.

Moreover, the current timeline – where the new method first applies to new models and only two years later to existing models – will lead to confusion. **We therefore recommend applying the new method to all models at the same time.**

7) Testing methods

The draft Ecodesign and Energy Labelling Regulations introduce revised formulas for the calculation of seasonal space heating energy efficiency for boilers and heat pumps, as set out respectively in Annex III (sections 2.1 and 2.2) of the Ecodesign Regulation and Annex IV (sections 2.1 and 2.2) of the Energy Labelling Regulation. These formulas differ from those currently applied under the relevant harmonised standards, notably EN 14825 for heat pumps and EN 15502-1 for boilers. Furthermore, the number of hours used for the calculation of SCOP (Annex III, Section 2.3. Table 2) are also different compared to the currently used values.

The revised methodology leads to systematically different - and in practice lower - efficiency results for the same technical inputs. As a result, identical products assessed under the revised formulas would no longer achieve the same efficiency values as under the current framework. This raises several concerns:

- First, the introduction of new calculation methodologies without a corresponding revision of the underlying harmonised standards creates legal and technical inconsistencies and uncertainty for the industry. Moreover, any divergence between

regulatory formulas and harmonised standards risks disrupting mandatory conformity assessment and certification procedures.

- Secondly, the implications for existing product registrations in EPREL remain unclear. The draft Regulations do not explain how recalculated efficiency values would be handled for products already registered in EPREL, nor how data consistency would be ensured in the absence of clear transitional arrangements.

Considering all the above, EHPA therefore **recommends** that the Commission aligns the calculation methodologies set out in the Ecodesign and Energy Labelling Regulations with the applicable standards.

8) Sound power level

On the sound power level, EHPA considers as a burden the provision expressed in article 12(4) to have a transitional period where new models are tested according to Settings 1 and existing models according to Settings 2. This will lead to vastly different declarations, as Settings 2 lead to higher sound power level. The new test method should apply from the same date for all models.

Moreover, the proposed sound power labelling classes do not reflect the changes made to the test conditions. Once the test method changes to reflect new settings, declared sound power values will increase. The sound power classes should therefore be reassessed, and a new set of classes should be considered once the test method changes.

In particular, the Class A threshold of 30 dB is considered unrealistic for heat pumps and lower than the noise level of common household appliances. The structure of the sound emission tables does not adequately reflect real installation conditions. In particular, for indoor-installed heat pumps, indoor noise emissions are typically higher than outdoor emissions, yet the current framework does not appear to capture this distinction.

Additionally, EHPA is concerned that the proposed sound power classes may create a distorted perception of product sound levels, potentially misleading end users. For example, a heat pump with a capacity of 11.8 kW and an outdoor sound level of 52dB(A) would fall into class C, whereas a heat pump with a slightly higher capacity (12.1 kW) and the same sound power level would be classified as B. This raises the question of whether such classes are helpful or necessary.

Moreover, the bottom class E threshold is also difficult to understand as it indicates equipment with higher sound power level than the allowed maximum sound (banned products) while class D maximum sound value is 10-20 dB(A) higher than the maximum sound. It is not clear how units below maximum sound level but above Class D threshold will be classified.

Taking into account these comments, the sound emission classes can be set according to the following table:

	Up to 6 kW		Up to 12 kW		Up to 30 kW		bigger	
dB(A)	Indoor	Outdoor	Indoor	Outdoor	Indoor	Outdoor	Indoor	Outdoor
A	40	45	45	50	50	55	60	65
B	45	52	50	55	55	60	65	70
C	50	57	55	60	60	65	70	75
D	55	62	60	65	65	70	75	80
E	>=60	>=65	>=65	>=70	>=70	>=78	>=80	>=88

9) Co-existence of old and new labels and allocation of responsibilities

The Energy Labelling Framework Regulation (EU) 2017/1369 in its Article 11 (13) requiries suppliers to provide both the existing and the rescaled labels to dealers during the four months preceding the mandatory display date. However, it is unavoidable in practice that products lawfully placed on the market before repeal will continue to circulate with old energy labels included in the packaging.

To ensure legal certainty and to ensure a fair allocation of responsibilities between the dealer and the seller in accordance with the Regulation (EU) 2017/1369, it should be clarified that the obligation to ensure the correct display of the applicable energy label at the point of sale should rest with the dealer.

10) Rescale of the energy label & simplification of the label design

The energy efficiency classes thresholds proposed for B and C classes are too ambitious. Under the current thresholds, even the best available technology air-source heat pumps would be unable to reach class B and would remain significantly below this level. The majority of heat pumps would therefore fall into class D**. EHPA recommends slightly lowering the thresholds for classes B and C**. **This adjustment is necessary to avoid undermining the policy objective of promoting heat pump deployment across Europe, as well as to prevent distorted consumer perceptions and weakened investment signals, including those linked to subsidy schemes that rely on energy efficiency classes.**

To address these risks, **EHPA recommends :**

- **revising the proposed energy efficiency classes thresholds – in particular :**
  - **amending Annex II, Section 1.1., Table 1 to ensure that class B is set at 200% and class C at 165% (for MT heating applications)**
  - **amending Annex II, Section 1.2, Table 2 should be amended to ensure that class B is set at 250% and C is set at 205% (for LT heating applications)**
- In parallel, EHPA recommends that the Commission accompany the introduction of the new scale with a clear communication campaign explaining the equivalence with the previous energy class system. EHPA suggests involving the Compliance Services project to support this communication effort.

Finally, EHPA welcomes the simplified look of the proposed label. Information on low-temperature application and water-heating performance, as well as performance under cold and warm climates, can be easily retrieved via the QR code displayed on the label. EHPA

considers that the symbols proposed are overall acceptable, **but questions the need to introduce a label for "F-Gas free refrigerant".** This approach does not reflect the EU F-Gas Regulation, which does not introduce a general ban on F-gases (except for specific categories), but rather sets limits on the use of refrigerants with a global warming potential above 150 or 750. This distinction is not accurately captured in the label. Moreover, the symbol is described in the text as referring to "refrigerants with low GWP", which does not exclusively correspond to non-F-gases. The link with energy efficiency is also missing, and the symbol itself is potentially confusing and unrelated to the actual regulatory framework on F-gases.

EHPA therefore suggests :

- **rather than adding this symbol, introducing an information requirement in the product information sheet for global warming potential and refrigerant type. This information would be more appropriately stored and accessed via the EPREL database** ; and
- **deleting the icon for "F-Gas free" and replacing it with an information requirement in Annex IV, Table 5 on global warming potential and refrigerant type**.

12) Verification tolerances

From an implementation-feasibility perspective, the proposed requirement for the parameters "Heating and cooling output measured on the liquid side", "EER, COP, FUEc and FUE", and "Electric power input for off, thermostat-off, standby and crankcase heater modes" for the verification tolerances raises serious concerns, such tolerances are considered unrealistic to achieve, from a laboratory perscpective. So, EHPA considers that these toleances for these parameters should be replaced by the ones defined in the certification scheme Heat Pump Keymark :

- measured heating capacity within ±8% of Pdh(Tj)
- COP: -8 % of the declared value
- EER: -8 % of the declared valueMeasured Electric power input off, thermostat-off, standby and crankcase heater modes : + 8 % or + 10 % of the declared value

Additionally, for self-measurement, the tolerances given in Annex V of Lot 1 are not possible to reach in the MSA process. EHPA consider an adaption to $10 + 50/\Delta\theta$ ($\Delta\theta$ = temperature difference between the inlet and outlet of the water heat exchanger) instead of $\pm 5+50/\Delta\theta$ necessary. The reason is that especially in low in/out temperature differences it becomes very difficult to reach measurement s which are accurate enough to fulfil the demand in the draft.

⇒ For LOT 1&2

11) 'Out of the box mode'

From a competitiveness and implementation-feasibility perspective, the proposed requirement to apply the ' out-of-the-box mode' for testing and verifying the performance of combination heaters and water heaters within 20 days after the entry into force of the Regulation raises serious concerns. Such a short timeline is considered **unrealistic** to achieve, including from a testing and laboratory perspective, and risks creating unnecessary implementation pressure

and additional costs without delivering clear benefits for consumers. In the interest of simplification and proportionality, **EHPA recommends that "out of the box mode" requirements should apply 24 monts after the entry into force of this Regulation.**

12) Load profile

The proposed changes to load profile declaration for water heaters also raise competitiveness concerns. The draft requires declaration of the maximum load profile, removing the existing flexibility to declare either the maximum load profile or the immediate lower one. Many products on the market are currently tested only for the next lower load profile, and a mandatory change would trigger significant re-testing and compliance costs. In addition, declaring the maximum load profile could create difficulties in meeting other regulatory requirements, such as V40 for hot water delivery.

In the light to avoid unecessary burden on manufacturers **EHPA therefore recommends maintaining the current flexibility to declare either the maximum load profile or the immediate lower one.** This flexibility is particularly important for heat pump water heaters, which need more time to re-heat a water tank than direct electric water heaters. To be able to achieve the temperatures in time in these cases it is also recommended for heat pump water heaters to be able to switch to the next smaller load profile.

⇒ For LOT 2

13) Self monitoring requirements for water heaters with load profiles 3XL and 4XL

Under the water heaters Regulation, the thermal performance of water heaters is assessed and verified on the basis of pre-defined tapping patterns and load profiles, as set out in the applicable testing and calculation Annexes. Manufacturers therefore do not determine thermal energy output as a standalone or real-time parameter, but only as an aggregated value linked to those standardised load profiles.

In this context, the requirement in Section 1.10.2, point (b), for water heaters with load profiles 3XL and 4XL to determine, store and display "*the thermal energy output for water heating*" is not consistent with the performance parameters defined in the current draft of LOT 2. As the latter does not establish a method to measure or verify such a parameter independently of a defined tapping cycle, this obligation cannot be reliably substantiated. For this reason, and from a competitiveness and simplification perspective**, EHPA considers that point (b) of Section 1.10.2 should be deleted.**

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The European Heat Pump Association (EHPA) represents the European heat pump sector. Our over 170 members include heat pump and component manufacturers, research institutes, universities, testing labs and energy agencies.

EHPA advocates, communicates and provides policy, technical and economic expertise to European, national and local authorities, and to our members.

We organise high level events and manage or partner in multiple projects.

We work to shape EU policy that allows the heat pump sector to flourish, and to become the number one heating and cooling choice by 2030. Heat pumps will be a central part of a renewable, sustainable and smart energy system in a future decarbonised Europe.