

# Position on the review of ENER Lot 1 (space heaters) and ENER Lot 2 (water heaters) following the Consultation Forum of 27 September 2021

15 November 2021

## EXECUTIVE SUMMARY AND RECOMMENDATIONS

The European Commission is reviewing ecodesign Regulation 813/2013 and energy labelling Regulation 811/2013 for space heaters (ENER Lot 1) and ecodesign Regulation 814/2013 and energy labelling Regulation 812/2014 for water heaters (ENER Lot 2). EPEE, the voice of the air conditioning, heat pump, and refrigeration industry in Europe, supports the EU ecodesign and energy labelling policies, and agrees with the need to keep the legislation up-to-date and in line with the latest technological developments.

This paper provides EPEE's position on the most recent proposals from the Commission on the review of the requirements for space and water heaters. In the first part, we highlight general concerns that apply to both policy files. In the second part, we elaborate our views on the ecodesign proposals for space and water heaters, which were presented at the last Consultation Forum of 27 and 28 September 2021. The third part continues with our comments to the energy labelling proposals, which were also discussed at the Consultation Forum.

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## Introduction

EPEE, the voice of the air conditioning, heat pump, and refrigeration industry in Europe, welcomes the opportunity to provide comments to the Commission's proposals for reviewing ENER Lot 1 (ecodesign Regulation 813/2013 and energy labelling Regulation 811/2013 for space heaters) and ENER Lot 2 (ecodesign Regulation 814/2013 and energy labelling Regulation 812/2014 for water heaters). We welcome the Commission's considerations of the industry comments following the last Consultation Forum of 27 and 28 September and we support the need for reviewing the requirements for space and water heaters.

Nonetheless, we believe that certain aspects could be further optimised. Please see our recommendations with more detailed explanation below. Note that our paper is split into three different parts:

- Chapter I provides general recommendations that are relevant for all proposals;
- Chapter II focusses on the ecodesign requirements for space and water heaters; and
- Chapter III deals with the revision of the energy labelling requirements.

## Chapter I: general

EPEE welcomes the proposals and policy options in the draft legal text. The proposed energy label combined with a realistic PEF will help to further promote the uptake of heat pumps in the market, and will therefore support the Commission's targets to reduce energy consumption and carbon emissions towards 2050.

However, it should be noted that many proposed new requirements will result in additional testing and development for heat pumps. This is creating significant burdens for manufacturers, and will highly impact the speed and cost effectiveness of placing heat pumps on the market.

### 1. Content of legal text

EPEE believes that the legal texts are not sufficiently mature and need a thorough revision and proofing. In many parts of the texts, there are typographical errors and unclear sentences that cause confusion for stakeholders and need to be corrected urgently, e.g., “capacity range of sound.”

Additionally, the proposed draft contains modifications in definitions resulting in significant changes to the current compliance assessment. Furthermore, these changes will also need to be reflected in relevant harmonised standards, as they deviate from the current testing and calculation method. It is unacceptable to alter definitions that impact our current compliance assessment without justification. Therefore, we strongly call to reinstate the original definitions. In the Annex to this paper, a list has been included of the definitions that need to be restored.

Moreover, several definitions are missing, for example, in the context of material efficiency, such as ‘spare part’ or ‘professional repairer.’

Given the impact of these changes, EPEE kindly requests the Commission to reconsider the changes that have been made and proposes following:

- **‘rated heat output of a heat pump’ ( $P_{\text{rated, hp}}$ ) (39):** With the new definition it can now be determined at TOL or at  $T_{\text{designh}}$  so between  $-7\text{ °C}$  and  $-10\text{ °C}$ . This limits the comparability between products. EPEE prefers to maintain the definitions of  $P_{\text{rated}}$  and  $T_{\text{designh}}$  of the current regulations and we ask the Commission to rephrase accordingly.
- **‘rated heat output of a hybrid heater’ ( $P_{\text{rated, hyb}}$ ) (40):** When referring to the rated heat output of a hybrid heater, it makes no sense to determine the  $P_{\text{rated}}$  of a hybrid unit on the basis of the sum of the  $P_{\text{rated}}$  of the heat pump and  $P_{\text{rated}}$  of the boiler. We suggest to adapt the definition as follows: ‘the rated heat output of a hybrid heater ( $P_{\text{rated, hyb}}$ ) means the declared heat output of a hybrid heater at  $T_{\text{designh}}$  in kW.’
- **‘low-temperature application’ (84):** As of today, a heat pump is considered as a low temperature heat pump if it cannot provide  $52\text{ °C}$  water at  $-7\text{ °C}$ . This condition on temperature has been deleted. Thus, it is not clear under which condition a heat pump can

be declared as a low temperature heat pump and which minimum efficiency requirements apply to comply with. EPEE asks to reinstate the current definitions.

- **Thermally driven heat pumps (new):** As ‘thermally driven heat pumps’ (TDHP) are not included in definitions under the ecodesign and energy labelling regulations, we would propose the following definition: ‘thermally driven heat pump means a heat pump using heat or an engine to drive the sorption or compression cycle.’ We would like to confirm that GAHP (gas absorption heat pump in line with EN 12309) and GEHP (gas engine heat pump in line with EN 16905) are both considered as TDHP. A TDHP could be coupled with an auxiliary boiler to become a hybrid system. In the current draft regulations, this hybrid category is not properly included.

## 2. Enforce requirements that are technology neutral

EPEE supports a technology neutral approach for any indication of energy sources in product information. Therefore, we welcome the introduction of correct the primary energy factors, PEFs, to ensure comparability of the different heating energy sources according to the principles of the Energy Efficiency Directive 2012/27/EC.

# Chapter II: Ecodesign

## 1. No introduction of the compensation methods without thorough assessment

### Annex III.2 – Measurements and calculations – General conditions for measurements and calculations

Although it was clarified that the compensation method can be applied voluntarily, EPEE does not agree with introducing a method that is not mature and not properly validated, not even as an option. The Consultation Forum stakeholders have also not publicly seen the final results of the Round-Robin Test (RRT) or discussed if any conclusions can be drawn and what corrective actions can be taken to address the issues identified during this RRT. Finally, although claiming to be manufacturer independent, it still requires deep knowledge and support from manufacturers to perform a test properly.

Therefore, EPEE fully agrees with the proposal made during the Consultation Forum to set up a dedicated technical meeting to discuss the results of the RRT and request that these results are provided ahead of that meeting, to allow for sufficient preparation and fruitful exchange of views.

## 2. Avoid significant penalties for heat pumps for unrealistic peak temperature requirements

### Annex III.7 – Measurements and calculations – Water heating energy efficiency

EPEE would like to highlight again that the peak temperature in current tapping patterns should be reduced from 55 to 50 °C to better reflect today's reality and allow for a level playing field among technologies. We understood at the Consultation Forum that there was unfortunately no appetite to change those. However, we wish to highlight that:

- Tapping patterns have been decided about 20 years ago and were already considered a decided fact when Regulation (EU) No 813/2011 was drafted. At this time heat pumps were barely present on the market. We therefore consider the current tapping patterns as outdated and technology prescriptive.
- It is realistic to say that consumers do not dishwasher nor take showers at 55 °C, and doing so would cause serious risk of scalding.
- Since the decision of the tapping housing patterns, buildings, and DHW usage and consumer behaviours have drastically changed, resulting in reduced energy demand. We question the need for such a high  $T_{\text{peak}}$  in tapping patterns.

EPEE strongly disagrees on the principle that heat pumps have to be penalised for not reaching a temperature of 55 °C for domestic hot water during the tapping, due to indirect heat exchange losses. In any case, a change in  $T_{\text{peak}}$  should lead to a thorough reconsideration of the MEPS and the energy label classes, as these have been increased to reflect separate technologies. Additionally, there should be no mix-up between performance, safety, and national regulations.

Some Member States raised the formation of legionella as a concern during the discussion on  $T_{\text{peak}}$ . It must be noted that legionella prevention is tackled on national level and there is currently no harmonised approach. Furthermore, there are different technologies on the market to prevent legionella and not all require higher temperatures. It is not appropriate to bring the formation of legionella into an Ecodesign discussion.

However, considering the Consultation Forum discussions at this point and noting that it will be difficult to amend the tapping patterns at this stage, EPEE recommends to modify the current proposal in line with currently made suggestions as follows:

*“If during the tappings the  $T_p$  of 55 °C in the declared load profiles of table 9 cannot be achieved by the heat pump combination heater, the average of the measured hot water temperature over the tapping shall not be lower than **50 °C** and the water heating efficiency  $\eta_{\text{wh}}$  shall be lowered by **4 percentage points**.”*

Although we still believe  $T_{\text{peak}}$  should be reduced to 50 °C ultimately, this proposal is a workable alternative solution to establish a level playing field under the current tapping profiles while meeting the current customer needs, and maintaining efficient heat pumps on the market.

EPEE proposes abovementioned compromise for both ENER Lots 1 and 2.

### 3. Ensure adequate requirements for hybrid systems

Annex II.1 – Ecodesign requirements – Requirements for seasonal space heating energy efficiency & Annex III.2 – Measurements and calculations – General conditions for measurements and calculations

EPEE noticed that the proposed MEPS for hybrids are low and lack ambition to ensure this technology contribution to the decarbonisation of heating. Furthermore, the requirement to have a 25 % contribution of heat pumps that are to be defined as hybrid systems is unclear, and there are different interpretations of how this should be taken into consideration.

We propose to increase the MEPS for hybrids to 125 % and remove the additional requirement of a minimum seasonal heating energy output for heat pumps of 25 %. Since raising the MEPS in any case ensures a significant heat pump contribution, there is no need for those 25 %.

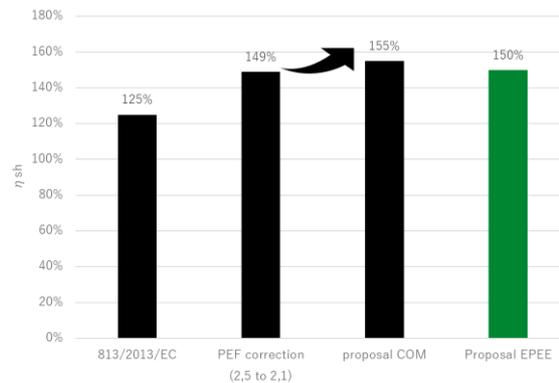
EPEE welcomes having both a separate and combined test method. However, such methods should always be in accordance with the EN 14825 standard. There is no need to describe both methods in such detail as it can lead to misinterpretations. For example, the compensation method is currently mentioned in the description of the combined test method, which is not in line with the standard. We suggest the following modification: With the combined method the hybrid unit is tested as a ‘black box’, measuring electricity  $Q_{\text{elec}}$  and fuel  $Q_{\text{fuel}}$  at each of the part load conditions in Table 4, including those at declared  $P_{\text{design,h}}$ ,  $T_{\text{fb,off}}$ , and  $T_{\text{hp,off}}$ , taking into account on/off cycling as appropriate. The seasonal energy efficiency is established as if it were a heat pump unit without supplementary heater.

### 4. Reduce MEPS for LT applications

Annex II.1 – Ecodesign requirements – Requirements for seasonal space heating efficiency

The MEPS for LT applications in Annex II.1 are too high and go beyond the PEF correction.

EPEE suggests that the current MEPS, set at 155 %, are reduced to 150 % in line with the adaption of the primary energy factor.



It is unnecessary to increase minimum efficiency requirements of best in class technologies that need to be facilitated in the market to achieve the much needed decarbonisation targets. Furthermore, the requirement for gas-driven low-temperature heat pumps, previously included under low-temperature heat pump, should be re-established to 125 %.

Please find below an overview of the proposed changes:

1. REQUIREMENTS FOR SEASONAL SPACE HEATING ENERGY EFFICIENCY

(a) From [date] the seasonal space heating energy efficiency  $\eta_{sh}$  shall be equal to or larger than

Space heater type	seasonal space heating energy efficiency
Fuel boiler	88%
B1 Fuel boiler $\leq 10$ kW & Fuel combi boiler $\leq 30$ kW	77%
Electric boiler	43%
Cogeneration space heater	100%
Electric heat pump, MT (Medium Temperature)	130%
Thermally Driven (TD) heat pump, MT	<del>115%</del>
Electric heat pump, LT (Low Temperature)	<del>135%</del>
Hybrid space heater, MT*	<del>110%</del>

125%

150%

125%

delete

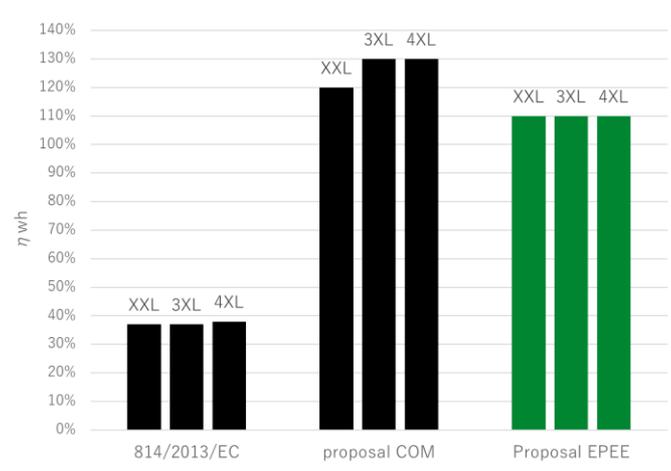
(b) From [date] space heaters with pilot flame shall no longer be allowed;

~~(c) From [date] the contribution of the heat pump in the hybrid space heater shall be at least 25% of the seasonal heating energy output, in kWh/a. (to be discussed)~~

5. Reduce MEPS for large tapping profiles of heat pumps

Annex II.2 – Ecodesign requirements – Requirements for water heating energy efficiency

We question the ambitiously increased requirements for water heating in XXL up to 4XL for heat pumps, especially in light of the discussions on  $T_{peak}$ . Although it was explained during the Consultation Forum that the new requirements are based on EPREL findings, EPEE questions the need for such a significant jump for a product technology that is already contributing to a higher use of renewable energy sources. As such, we propose the requirements are reduced to 110 % (to be reassessed if penalties are imposed for  $T_{peak}$ ), which is more in line with the steps applied for other technologies.



**6. More study needed on real life data monitoring**

**Annex II.7 – Ecodesign requirements – Requirements related to monitoring**

EPEE has deeply considered the proposal for gathering real world energy consumption data, and would like to seek more clarification and more information on how such a requirement would be possible to implement in a realistic, cost-efficient, fair, and meaningful manner. There is no information indicating that a detailed impact assessment has been performed on the technical and legal feasibility of such requirements to prove the merits of monitoring requirements for end-users/consumers are proportional to the generated additional burden and costs. As such, we have deep concerns about several aspects described in the proposal and we tend to believe that these monitoring requirements are premature and we are uncertain of their benefits. Please see our concerns on the following aspects.

**a) Requirements to compare efficiency calculated from monitored data with declared efficiencies are not feasible**

- Comparing to the declared efficiency is not possible given that each product will be applied in conditions and loads different to the controlled conditions (test labs) applied for the declaration. The deviations will be large and, therefore, very high tolerances will have to be warranted. Furthermore, the differences observed will be installation-/user-specific, and we believe that this makes the comparison misleading as it draws no meaningful conclusion without onsite audit of the installation;
- For an adequate comparison, the unit should run in the conditions that are the same as for the test conditions and with the same measuring instruments as used in labs. Such instruments have a high accuracy (resulting in high costs), which are not necessary and disproportionate from a consumer perspective;
- Since the product is applied in a certain climate, it will mean that the data should be collected separately for different climates in order to evaluate the data properly;

- Furthermore, we believe that showing the consumption trend is sufficient for consumers to adapt their behaviour. In our understanding, it seems a rather useless feature to compare the efficiency declarations;
- Liability issues are not addressed. As noted in the final report of the ENER Lot 38 preparatory study on ecodesign for building automation and control systems (BACS), BACS “functionality is often added by resellers, installers or energy service companies.” This includes in certain cases third-party installation of the sensors (remote devices) without involvement of the manufacturer to facilitate the installation or integration in consumers’ home environment and needs. If not properly installed or calibrated, this will significantly impact the final monitoring results and any possibility to use them for any comparison purposes. The ENER Lot 38 final report recommends that legal responsibility in this case is explored in a thorough impact assessment.
- There is a lack of **harmonised** standards for sensor accuracy, which could undermine the intention of better understanding real-world performance and use patterns. Accuracy issues would also make it extremely difficult to compare and/or aggregate reported data. The differences in precision and placement of sensors, combined with calibration and high-accuracy data logging, are crucial factors for comparability of monitoring results. Such a high requirements will significantly increase the costs for the consumers, without any important additional benefits, as the main driver for consumers behaviour is the trends and not necessarily the absolute value. A thorough impact assessment is necessary to understand this effect.

EPEE believes that the future legislation requirements should not consider comparing monitored data with declared efficiencies, as this would not be helpful in terms of transparency to the consumers, nor will it help in reducing their consumption.

#### **b) Collection and upload in EPREL poses challenges**

- The collection of such data highly depends on the consumer consent and whether they are, in the first place, agreeing to sharing this data;
- Any collection of data will be incomplete and inaccurate since the data will be affected by sizing, the building demand, climate, user behaviour, proper installation, etc. All in all, it will be difficult to identify whether the consumption is related to the product as such or whether these will be related to, for example, oversizing, inadequate installation, or the building physics. Aggregated data will not be representative of the situation in which consumers will find themselves in their homes, ultimately leading to misunderstanding;
- We question if the current EPREL database will be able to handle such large amounts of information;

- As indicated above, accuracy is also a crucial factor. High precision will drive up the costs of the equipment for the end user while a low accuracy will make fair comparison of the data on EPREL impossible;
- In addition, we doubt that compliance checks on such data can be conducted in a rapid and efficient manner, leading the door open for an unfair playing field in term of non-fulfilment of those new obligations and thus negating the value of the proposed option;
- Furthermore, data rebound effects for emissions are not considered. Introducing mandatory monitoring requirements will see a major increase in the volume of data that manufacturers will need to store and secure, in duplicate across multiple sites or in an expanded cloud underpinned by additional/larger data centres. Storing such data will require additional server storage capacity/data centres, thus leading to an increased process cooling energy demand and thus potentially to additional CO<sub>2</sub> emissions.

### c) Other aspects to be considered

- This information is to be gathered **after** placing on the market of the product and does not necessarily fit the scope of the Ecodesign Regulations, which regulate the placement on the market.
- **Lack of harmonised standards for IoT cybersecurity** and a larger attack surface increases the risk of cyber-attacks putting consumers personal data spaces, the integrity of industry and value chain IT systems and also the grid at risk.
- We wonder how Market Surveillance Authorities can check such requirements and whether this could bring benefits for these activities. EPEE prefers that the MSAs assess the compliance of equipment, instead of assessing the compliance of monitoring, especially due to the limited resources for such checks.

In light of these concerns, EPEE would welcome that further study is done as to what the exact purpose would be of such an exercise, and that further discussions are planned in technical meetings before moving this into a requirement that may not be fit for purpose and raise burdens that may not contribute to the decarbonisation targets.

## 7. Do not change the sound power requirements

### Annex II.3 – Ecodesign requirements – Requirements for sound power level

The sound power level limits should remain defined for the rated capacity as defined in  $P_{\text{design}}$  and in line with the current regulation and the scope should be limited to 70 kW. Based on the current definitions, by applying the heat output at part load condition C, the products will have to meet more stringent requirements and this cannot be the purpose of the change.

During the Consultation Forum, the consultants explained that the rated capacity should be used for the sound power level. However, this is not reflected in the updated draft legal text, although it is included in the corrected presentation.

The following example explains the impact. A unit rated today at 10 kW ( $P_{rated}$ , A condition) will have to meet a sound power requirement of 65 dBA, in the current proposal, using the heat output at part load condition C, the sound power requirement is set at 60 dBA. This is 5 dBA lower.



In order to solve this, the following should be modified:

3. REQUIREMENTS FOR SOUND POWER LEVEL

From [date] the sound power level of heat pump heaters and hybrid heaters shall not exceed the following values when providing space heating.

Capacity (kW)	Sound power level ( $L_{WA}$ ), indoors	Sound power level ( $L_{WA}$ ), outdoors
$\leq 6$ kW	60 dB	65 dB
$> 6$ kW and $\leq 12$ kW	65 dB	70 dB
$> 12$ kW and $\leq 30$ kW	70 dB	78 dB
$> 30$ kW and $\leq 70$ kW	80 dB	88 dB

It must be noted that the definition for  $P_{rated}$  of a heat pump has been changed and can now be declared between -7 °C and -10 °C. This will not allow for comparison of units. In line with Chapter I.1 of this paper, EPEE asks to reinstate the current definition for  $P_{rated}$ .

8. Define the scope of material efficiency requirements

Annex II.5 – Ecodesign requirements – Requirements for material resource efficiency  
Material efficiency requirements are introduced in Annex II.5. The current wording is open and without limitations to the components that will need to be kept as spare parts by the suppliers.

EPEE urges the Commission to limit the requirements to a closed list of spare parts, similar to the approach in other product groups (e.g., ENER Lots 10 and 12). Specific consideration should be given to the larger capacity products, as these products differ widely from each other, are often custom-made and already have dedicated maintenance contracts.

Therefore, we propose to limit the scope of resource efficiency requirements to units <70 kW, in line with the scope for Energy Labelling. It should be noted that manufacturers already have a list of crucial spare parts and have categorised spare parts according to best practices in logistics, supply chain, and installer requests, in order to ensure adequate repair service in case of critical defects. In addition, spare parts are managed in such a way that a careful balance is found between having sufficient spare parts available to meet customer requirements and avoiding excess stock leading to unnecessary scrapping of parts.

For units <70 kW, we suggest the following list of spare parts that deemed crucial to the functioning of the unit:

- compressors;
- heat exchangers;
- thermostats and sensors;
- printed circuit boards;
- fan motors;
- electrical valves;
- integrated circulators;

## **9. Introduce a secure platform for the upload of test settings**

### **Annex III.2 – Measurements and calculations – General conditions for measurements and calculations**

It is unacceptable for industry that Annex III.2 brings forward a free access website as platform on which suppliers are required to upload their declaration on the part load settings. EPEE believes that such information should not become publicly available, due to its sensitive nature, and should only be uploaded on a highly secure website.

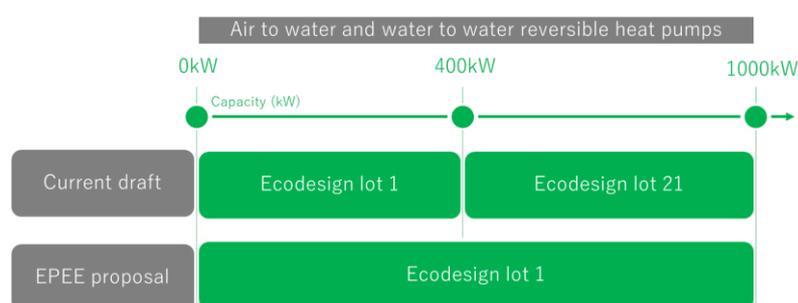
An option for the provision of such information is the compliance part of the EPREL. In case the Commission decides on another platform, clear boundary conditions have to be set on sharing and eligibility.

## **10. Ensure that the scope extension does not lead to double regulation**

### **Article 1 – Subject matter and scope**

Article 1 of the Ecodesign proposal includes a scope extension from 400 kW to 1 MW rated heat output for hydronic heaters, central space heaters, and combination heaters. Such a scope extension can be possible, provided that double regulation is avoided (for example, by exempting products within the scope of ENER Lot 21).

EPEE proposes to move any reversible units (which can do both heating and cooling) with a rated heat output of up to 1 MW within the scope of ENER Lot 1. Currently, they are scattered over various Lots, which leads to confusion amongst suppliers and end-users alike. Moreover, bringing these products within the scope of this regulation will foster a level playing field. In order to ensure a fluent transition of scope from ENER Lot 21 to ENER Lot 1, EPEE recommends to sustain the current exemptions in ENER Lot 21 with an adaptation of the legal references to ENER Lot 1.



## 11. Strengthen market surveillance first

### Article 4 – Conformity assessment

Independent from the chosen conformity assessment method, EPEE calls for closer cooperation between industry and market surveillance authorities. In addition, we call for mutual trust and full implementation of the new Market Surveillance Regulation (EU) No 2019/1020, for the sake of the European consumers and the EU’s climate and energy goals.

## 12. Remove detailed test methods and procedures from the regulation

### Annex III – Measurements and calculations

Detailed test methods and procedures are already described and periodically updated through standardisation processes, and including this in regulations will hamper improvements and changes for future products. The reason for this is that standards are the unique tool to describe how a test should be performed, and the standardisation process itself involves the appropriate experts on the subject matter of testing. Such experts do not always have access to the EU regulatory process and vice versa. Therefore, EPEE strongly recommends removing detailed test methods and procedures from the regulatory proposal.

Furthermore, introducing such detailed descriptions in the legal text can lead to wrong interpretations that could have serious consequences for the compliance assessment of products. One example is the test method for hybrids.

Moreover, the argument was given that this is the prerogative of the Commission due to the legal court cases on energy labelling. EPEE calls for the relevant background information to understand and assess the relevance of these cases to the principles of Ecodesign.

### **13. Further evaluation is needed before changing the brine temperatures**

Annex III.5 – Measurements and calculations – Control, auxiliary energy and standby heat loss corrections  $\Sigma F(i)$

EPEE opposes the change of brine-to-water inlet / outlet temperatures from 0/-3 °C to 5/2 °C for average climate. No data was exchanged nor justification shared.

EPEE would appreciate the evaluation to be shared publicly, so that we can understand how the proposal was assessed and how it can be applied to all regions in Europe and whether a similar approach could be planned to investigate the increase in rating ambient air temperatures. A change from 0 °C to 5 °C water inlet temperature into the heat pump is a significant step that does not reflect different climatic conditions, a variety of soil conditions, and collector types and inevitable imperfect drilling situations.

Increasing the design temperatures leads to a virtual boost in the efficiencies of ground source heat pumps, which distort the current market comparison and allow for loopholes. Additionally, consumers are misled by promised temperature-based improved efficiencies that are not always achieved in real life installations.

### **14. Clarify the definition for circulation water heater**

See: Article 2(10)

The current definition of circulation water heater is not clear enough.

- It is unclear whether any space heater combined with a storage tank can fall under this definition and will have to fulfil the same requirements.
- We are also questioning whether heaters using the combination label need to fulfil the same requirements for circulation water heaters, especially for the generator as in such cases they need to deliver the required temperature regime.

Furthermore, EPEE would like to highlight that the required temperature rating regime for HP (45/60) is penalising and oversimplistic for such relatively complex type of units. We

recommend using a temperature regime of 47/55, which is in line with the actual usage of such systems.

## Chapter III: Energy Labelling

### 1. Introduce a single energy label with a single scale for all technologies

#### Annex III – The labels

EPEE supports the Annex III rescaling of the energy label to A – G as it promotes the best efficiencies. We prefer a quick application to ensure transition to better efficiency with one tier and one scale comparing all technologies with a fair distribution of scales. This means that the rescaling should group all heat pumps in one class – because of that, more work is needed to enhance granularity. The most effective way to achieve that is to add efficiency dominantly on the label.

In line with aforementioned, the energy label should be as simple as possible. Currently, there are too many symbols on the label, and they are ambiguous and may be confusing. As such, we wonder whether adding the cold and warm climate is giving much added value, as it is already included in the public part of EPREL and can be accessed via the QR-code. Also, the indication of the energy sources does not provide any clarity to the consumer and does not aid in increasing the choice for renewable energy-powered appliances, and as such EPEE suggests to either improve or to remove these icons.

EPEE would like to stress that introducing a second scale, as proposed by some stakeholders during the Consultation Forum, could further increase the complexity of the label and is to our opinion not required. To increase granularity, placing the efficiency value on a prominent place on the label can support consumers in choosing the most efficient appliance.

Above position applies to both ENER Lots 1 and 2.

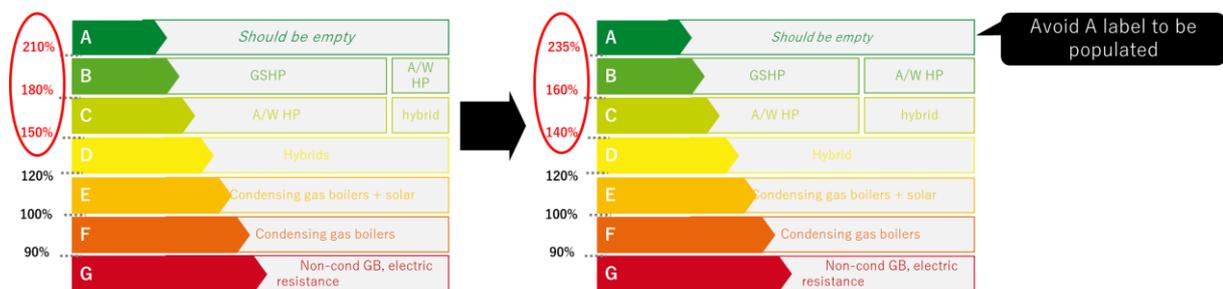
### 2. Better balancing of the MT labelling scale

The energy labelling scale should steer the consumer to the highest labelling classes. However, we find that current proposals are unbalanced and too restrictive for the highest efficiency classes, leaving customers with choices to mainly products below the B class as the products in the highest classes may not be optimised for their needs or budget.

To this end, EPEE proposes a new energy labelling scale that will promote in a more balanced way heating solutions towards consumers. The proposal reduces the B class threshold from 180 % to 160 %, and the C class from 150 % to 140 %.

Furthermore, it seems the A class in the current proposal can already be populated, which should be adapted to be in line with the Energy Labelling framework.

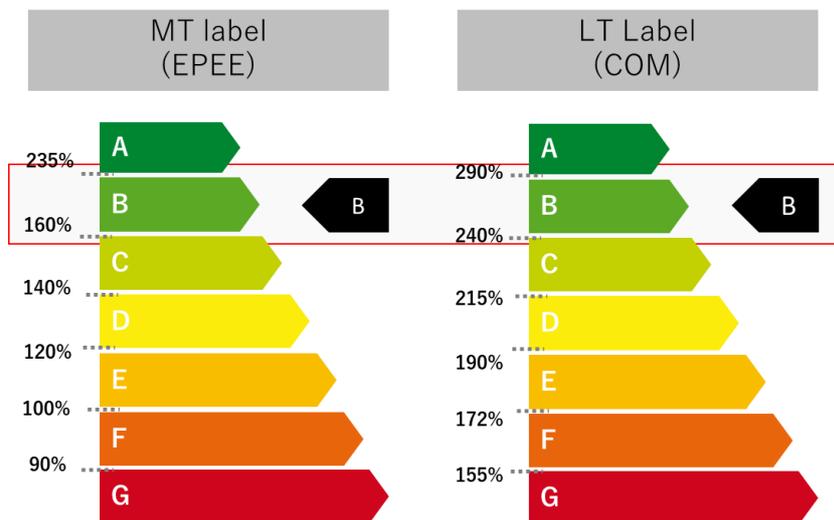
The following figure demonstrates the estimated effect of this proposal.



### 3. Lower the energy labelling scale for LT heat pumps

#### Annex II.1 – Energy efficiency classes – Seasonal space heating energy efficiency class

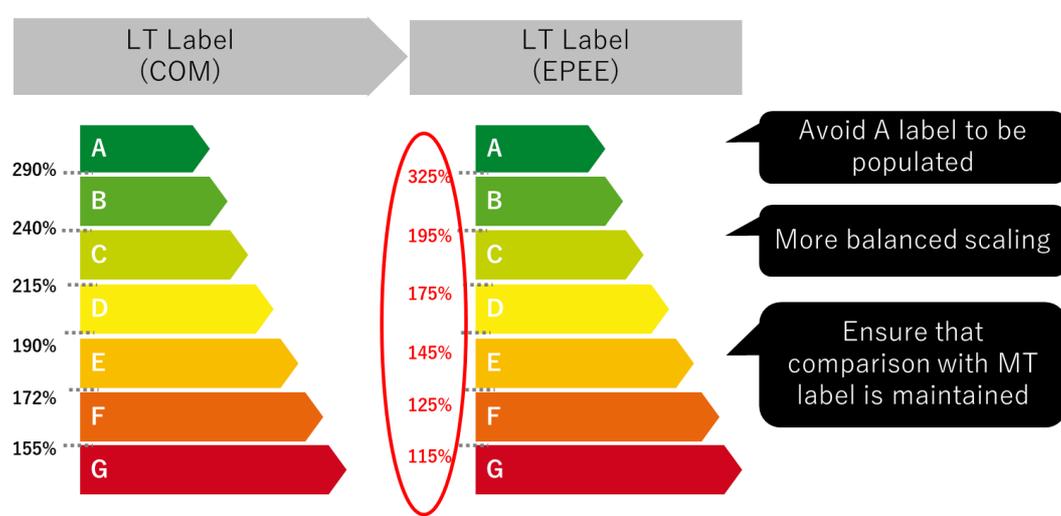
The scale for LT applications in Annex II.1 is too ambitious and should be reconsidered to align better with the MT scale. With the current proposal, a heat pump for LT application could be seen as less efficient than one for MT application.



A heat pump for MT application classed in B would have an efficiency of 160 % (in the EPEE proposal) whilst an LT heat pump has to reach at least 240 %. This could mislead the consumer and potentially drive the consumer to make the choice to use heat pumps for

higher temperature conditions whilst there should be a clear drive to reduce the energy demand.

Therefore, we propose to maintain the current practice for the energy labelling scales in the same way as today. A difference of -25 percentage points is sufficiently large as the technology difference has not changed over time. Also, with the current scales it might be that the A class is populated, and this is not in line with the Energy Labelling Framework Directive. In addition, a better balance in the energy labelling classes is proposed to enhance competitiveness.

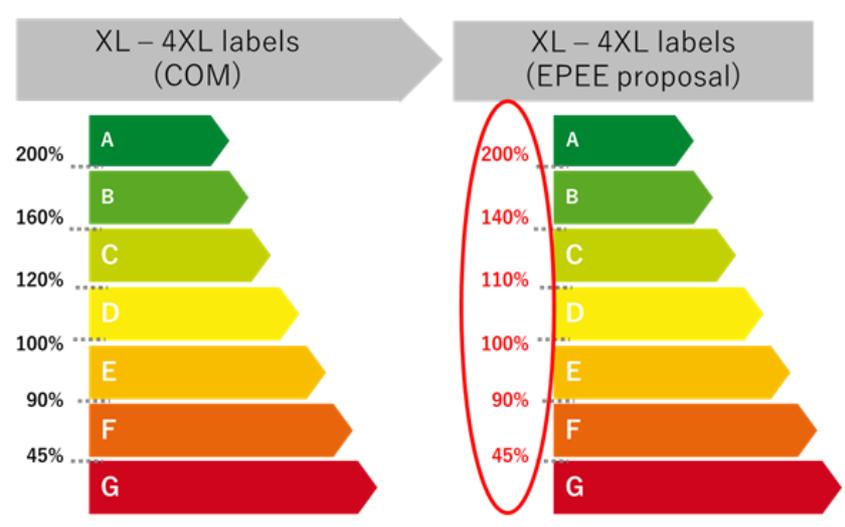


#### 4. Rebalance the energy label scale for large combi heaters

##### Annex II.2 – Energy efficiency classes – Water heating energy efficiency classes

Concerning the energy label for water heating (combi heaters) in Annex II.2, EPEE is concerned about the confusing and wrong messaging towards end-users. The reason for this is that the difference between the load profiles is large, which results in high energy labelling scale requirements for the bigger load profiles. As a result, the best in class may have a lower energy label class, which sends the wrong message to users.

To accommodate for this we propose to change the labels as follows:



### 5. Remove the optional regime at 65 °C

Annex IV – Product information sheet

EPEE does not support the current proposal for an optional regime at 65 °C, as it would be misleading to consumers and not helpful for heat pumps comparison. Declarations for such regime also do not fit into the strategy of Article 8 of the Energy Performance of Buildings Directive (EPBD) for lower temperatures. Indeed, optional declarations of 65 °C could give the message that there is no need to adapt the building to ensure that the heat pump can work at the lowest possible temperatures.

High-temperature heat pumps able to support 65 °C water temperature can be found on the market. However, these products are dedicated to a niche market and do not represent the vast majority of systems and applications. Considering the current scope of Regulation 811/2013 up to 400 kW heating capacity and in light of the scope extension, heat pumps are covered in both residential and non-residential applications. Many of these commercially used heat pumps are set to produce water leaving temperatures of around 45 °C. For these products, it is not possible to reach 65 °C without using supplementary electrical heaters.

Heat pumps for space heating should not be forced to be designed for higher water leaving temperatures than 55 °C, even if this is given as an optional information requirement. As such, we recommend keeping the MT testing regime at 55 °C, which corresponds to the medium temperature application specified EN 14825.

### 6. Enhance digital information sharing

Considering the availability of the EPREL database, EPEE questions the need for adding technical documentation in printed format in the product packaging. The energy label is connected to the EPREL information, we urge the Commission to reconsider the need for

continuing the wasteful practice of adding printed technical documentation and manuals in all 27 official EU languages in the product packaging.

#### **a) Printed energy labels**

Present requirements state that the energy label has to be added with the product in the packaging. Since a lot of heat pumps are considered to be 'split' type, which allows for different sets of combinations, we believe that this is not an appropriate solution. A heat pump cannot be considered in the same way as a television set, a washing machine, or light bulb.

EPEE does support the fact that the energy label should be shown at the appropriate time when the consumer is making a choice. In that sense, adding the label in the packaging is not a good solution. The consumer only receives the packaged product from the installer once he has made the choice, and as such the information should be shown well on beforehand.

To this end, we propose that for split type heat pumps one energy label of one chosen combination is added to the packaging either on the indoor or on the outdoor, and the other possible labels are available on the EPREL database or shown on the free access websites.

#### **b) Product information in the instructions**

Requirements for product information define that the technical parameters have to be made available on free access websites and in the instructions. EPEE finds it redundant to add such information into the instructions as typically this information is relevant at the stage of product acquisition or at the stage of market surveillance. The instructions are in general available with the product during procurement. As such, this information is not useful and is wasteful in terms of printing materials, being mindful of resource and material efficiency.

Indeed, by reducing this, we save 2 pages of printed paper per manual. It is estimated that a standard pine tree will produce around 10,000 sheets of paper. Looking at the current market of space heaters, this may easily add up to a saving of 1200 pine trees on yearly bases.

EPEE welcomes proposals that simplify the approach of making the technical parameters of the product information available. Given the current digital landscape, we should have solutions to reduce the places to share this information. We suggest to use the EPREL database as the best place to maintain that data, and to avoid requirements to include these in the instructions.

## ABOUT EPEE

EPEE represents the Refrigeration, Air-Conditioning and Heat Pump industry in Europe. Founded in the year 2000, EPEE's membership is composed of over 50 member companies as well as national and international associations from three continents (Europe, North America, Asia). With manufacturing sites and research and development facilities across the EU, which innovate for the global market, EPEE member companies realize a turnover of over 30 billion Euros, employ more than 200,000 people in Europe and also create indirect employment through a vast network of small and medium-sized enterprises such as contractors who install, service and maintain equipment. Please see our website (<https://www.epeeglobal.org/>) for further information.