INTRODUCTION

EPEE – representing the heating, cooling and refrigeration industry – would like to provide comments as a follow-up to the first stakeholder meeting of the Working Group 1 ‘Hydrogen’, which took place on 13 February 2020.

1. The increase of seasonal space heating efficiency for low temperature heat pumps from 150% (PEF 2.1) to 170% (PEF 2.1) would ban 60% of the current heat pumps
2. The Primary Energy Factor (PEF) needs to reflect the transition to renewable energies
3. A bonus for hydrogen boilers would not be consistent with market realities and ecodesign principles

EPEE is pleased to participate in the Stakeholder Consultation on the various topics identified in Task 6 of the review studies related to Lots 1 and 2 Space and Water Heaters – and clustered in 4 Working Groups (WGs).

Following the first meeting of the WG 1 ‘Hydrogen’, which took place on 13 February 2020, EPEE would like to provide some comments.

1. Heat pumps are crucial to decarbonising the EU’s heating sector: increasing seasonal space heating efficiency for low temperature heat pumps from 150% (PEF 2.1) to 170% (PEF 2.1) would be counterproductive as it would ban 60% of the current heat pumps from the market

   • VHK and the European Commission should reassess the feasibility of increasing seasonal space heating energy efficiency limits for low temperature heat pumps to the levels proposed by the consultant.

   • The increase of seasonal space heating efficiency for low temperature heat pumps from 150% (PEF 2.1) to 170% (PEF 2.1) would ban 60% of the current heat pumps from the market. This would prevent important CO₂ emissions reductions as an increase of 20% in the product efficiency would require a reconsideration of heat pump design and would significantly increase dimensions and costs.

   • There is a risk that the increase of seasonal space heating energy efficiency by 20% would be achieved at the expense of the energy efficiency of the cooling mode. When designing reversible heat pumps, engineers must make compromises to balance heating and cooling energy performances. In conclusion, an exaggerated increase of seasonal heating energy efficiency might lead to a reduction of the efficiency in cooling mode and lead to higher greenhouse gas emissions.
• The scope for the ecodesign of space heating devices reaches up to 400kW: EPEE disagrees with a proposal to split this scope into two capacity groups as it would be confusing for consumers and industry without any tangible benefits.

2. **The Primary Energy Factor (PEF) needs to reflect the transition to renewable energies**

• EPEE supports the adoption of the EED defined PEF of 2.1 and the appropriate/proportional adjustment of the minimum efficiency requirements. However, these should be thoroughly reassessed if changes to the rating conditions, test method and calculation are introduced (e.g. 65°C, dynamic test method, controls correction etc.).

• The implementation\(^1\) of the primary energy factor (PEF) correction needs to take into consideration technologies that may fall within the air to water heat pump family but would be affected differently by the PEF correction than electrically driven heat pumps. There should be specific MEPS for gas driven heat pumps (such as gas engine heat pump - GEHP) in line with current state of technology (Base case, LLCC). Furthermore, GEHP are mainly used for commercial applications and optimized for providing cooling functions as well (often the primary function). The proposal of increasing low temperature heat pumps MEPS is not feasible for these products. An idea could be to maintain the same etas as defined in the regulation 813/2014 e.g. 110% for MT and 125% for LT.

3. **A bonus for hydrogen boilers would not be consistent with market realities and ecodesign principles**

• The ENER Lot 1 study proposes the introduction of a 20% bonus for H2-ready and biogas boilers. EPEE disagrees with the principle of bonuses as they water down energy efficiency requirements which are at the heart of ecodesign. Furthermore, the introduction of hydrogen ready boilers has no link with energy efficiency and should therefore not be given a bonus. In addition, giving such a bonus would be misleading for consumers as it would artificially increase the energy efficiency performance on the label without any certainty that such equipment would actually run on hydrogen.

• If new technologies need support in certain markets, this can be achieved through local incentive schemes but not by overall bonuses. Additionally, 100% hydrogen-ready boilers are far from reaching the market, as they are still in the state of R&D and lack the necessary supporting infrastructure.

• EPEE disagrees with the proposal to add a ‘hydrogen-ready’ icon to the energy label because technology information may confuse or mislead end users; and dilutes/weakens the energy efficiency messages.

• The Primary Energy Factor (PEF) - used for the projections and assumptions on the decarbonisation of the heating sector made in the study until 2050 - needs to reflect the transition to renewable energies. The EU defined targets for the decarbonization of electricity by 2030 and 2050, with a progressive increase of renewables into the electricity-mix. However, in the study, the PEF has been kept constant at 2.1 until 2050 which means that no additional renewable energy use has been considered from today until 2050. This does not reflect the EU’s climate and energy policy framework. Therefore, the projections should be re-evaluated considering this increase of

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\(^1\) Background information: the final reports of the study, published last year, recognised this need to adapt the MEPS for gas engine driven heat pump, as they will not benefit of the lift from the PEF change and with the initial limits proposed in the drafts, those type of heat pumps would be banned from the market, while being more energy efficiency than other conventional heating systems.
renewables in the electricity mix, supporting the decarbonisation of the heating sector with the use of heat pumps.
ABOUT EPEE:

The European Partnership for Energy and the Environment (EPEE) represents the refrigeration, air-conditioning and heat pump industry in Europe. Founded in the year 2000, EPEE’s membership is composed of 40 member companies, national and international associations.

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.

EPEE member companies have manufacturing sites and research and development facilities across the EU, which innovate for the global market.

As an expert association, EPEE is supporting safe, environmentally and economically viable technologies with the objective of promoting a better understanding of the sector in the EU and contributing to the development of effective European policies. Please see our website (www.epeeglobal.org) for further information.