Revision of Ecodesign requirements & Energy Labelling for Space and Combination Heaters

Feedback to the Commission draft Proposal

In light of the Commission’s proposal to revise the Ecodesign and Energy Labelling requirements for space heaters and water heaters, Liquid Gas Europe would like to express its concerns about the Commission proposal for a minimum energy efficiency standard for stand-alone heating systems of 115%, with the expressed intent to phase out the sales of stand-alone fuel boilers from 2029.

Decarbonizing buildings is a challenge addressed by the Energy Performance of Buildings Directive (EPBD), and now the revision of Ecodesign requirements & Energy Labelling for Space and Combination Heaters. A revision of one posits the revision of the other, and both must therefore be compatible with each other. The revised Ecodesign framework must therefore support all efficient and renewable-based solutions, while allowing the consumer to make the best choice suitable for their needs. This is particularly true for rural and off-grid households, with no connection to the gas grid and often less well-developed electricity supplies. The exclusion of all standalone boilers – renewable-ready or otherwise – hinders the decarbonization of the EU building stock and a just transition.

Liquid Gas Europe appreciates the invitation to take part in the Consultation Forum on April 27th, and the following Technical Meeting on June 12th. We would like to reiterate the same suggestions made together with other Member States and stakeholders:

**Our suggestions:**

1. The Ecodesign revision should allow for the continued use of efficient boilers certified to run on renewable fuels after 2029, also in the light of enabling the development of renewable pathways of fuels. This is in line with the European Parliament position on the EPBD, as well as the conclusion of the EU’s 2050 long-term strategy. The Commission may provide a technical exemption from the minimum tier 2 threshold of 115% for standalone boilers certified to run on renewable fuels in line with the EP proposed EPBD revision. Other options including a revised Tier 1 minimum efficiency (such as those proposed by the Italian Associations) are also welcomed and should be considered.

2. Provide a technical exemption that allows consumers to couple a boiler and heat pump (and/or solar thermal) independently to achieve a hybrid heating system, without having to purchase a dedicated combined unit. The definition for hybrids should therefore not imply that the system must be “designed as a unit”. The requirements in Annex II Part 1(b) and Part 5 must therefore be revised.

**The proposed revision is restrictive and misleading:**

The requirement for standalone space heater to meet 115% as of 2029 is a targeted ban on all boilers (fuel-based, renewable, or electric). According to the Commission, this is backed with the target in EU Save Energy Communication introducing 2029 as the end date for “stand alone fossil fuel boilers”.

For the reasons outlined below, Liquid Gas Europe is critical of the fact that the EU Commission acts against the criteria set out in Article 15(5) of the Ecodesign Directive, namely that an implementing measure must not have any significant adverse effects on consumers and that the measure does not affect the competitiveness of the industry.

Setting such a high minimum energy efficiency requirement for space heaters at EU level acts as an automatic barrier for certain space heaters from entering the EU common market. Doing so would significantly limit consumers’ options to decarbonize their households, while also incurring increased costs. It is also likely that lower-income
households, and those in rural and off-grid areas will experience a lock-in effect of their older and less efficient heating units, as the increased costs and limited options lead to opting for repairs rather than replacement. This is also backed by the Commission Consumer Survey.

Instead, the option should be given to Member States to regulate in a way that is best suited for their local needs. Member States who choose to pursue higher levels of ambition should still have the possibility to do so, by choosing the technology that is best suited to their building stock, from as wide a pool as possible.

Additionally, the rescaled Energy Labelling requirements will result in all boilers reaching a maximum rating of F, and a lower rating of G. The rescaled combined label (including heat pumps, boilers, hybrids, and CHP) does not compare like technologies to each other. This combined label does not account for renewable energy used in boilers and is based on the false assumption that all grid-based electricity will be 100% renewable by 2029.

The requirements for all hybrid heating systems to have been “designed as a unit” also restricts consumers from coupling a stand-alone boiler with a heat pump down the line if desired. As it stands, the Commission intends to ban the sale of all stand-alone boilers and will restrict hybrid heating systems solely to those designed to be sold and used as a unit. As per Annex II Part 5, boilers would not even be able to be sold as a “spare part” for a hybrid heating unit, implying that after 2029 consumers have only two options when the boiler component of a hybrid breaks: Option 1, the broken part is replaced and the boiler is fixed; Option 2, if the damage is severe enough, the entire unit (boiler + heat pump + solar) must be replaced entirely, even if only the boiler is damaged. Clearly by banning the sale of standalone boilers the Commission risks consumers running extremely high repair/replacement costs because the option to replace the broken boiler does not exist.

The differences between a technology and a fuel must be recognized, by making a clear distinction between technologies capable of using renewable fuels:

Although the Commission argues that Ecodesign is not the right instrument to include arguments about fuels, the current revision appears to be driven by the Commission’s objective of completely phasing out fossil fuels and stand-alone fossil fuel boilers, as outlined in the EU Save Energy Communication. The revisions act as a de facto ban on all stand-alone boilers. However, this view does not account for the high costs associated with replacing a boiler for a heat pump and the renovation costs that come with ensuring the heat pump operates as efficiently and effectively as possible. Instead, the Commission could have embraced renewable fuels to replace fossil fuels in boilers.

The “fossil fuel” in “fossil fuel boilers” describes the source of the fuel not the type of combustion technology. When operating on a renewable fuel, a boiler can no longer be considered “fossil”. Modern condensing boilers are already highly efficient, reaching an efficiency of 96% or 98% with smart monitoring. What is more, these boilers are also 100% compatible with renewable LPG, a renewable liquid gas molecularly identical to conventional LPG. Therefore, when switching to renewable liquid gases, the boiler itself and the existing infrastructure remain completely unchanged. When combined with the possibility of running on renewable fuels, such as renewable LPG blended with renewable and recycled carbon dimethyl ether (DME), these condensing boilers present the added benefit of reducing overall GHG emissions and are also no longer “fossil fuel” boilers.

The distinction between fuels and technology was recognised by the European Parliament when it approved its position on the EPBD in March 2023. The Parliament recognises renewable ready boilers as “hybrid heating systems, boilers certified to run on renewable fuels and other technical building systems not exclusively using fossil fuels”.

The Commission should therefore ensure consistency with the political position of the European Parliament, particularly as the EPBD enters Trilogue discussions. However, the Commission proposal does not account for renewable-ready boilers. In the summary of the proposals, the Commission states that the “possible use of green
gaseous or liquid fuels in the long term for the products in scope will depend on the development of safety standards under the Gas Appliance Regulation (GAR)". However, work on the CEN TC 238 work stream is progressing to certify boilers operating on newly introduced new renewable gases and blends thereof.

Further, the Commission Consumer Survey for the Energy Label specifically includes hydrogen-ready boilers as a classification type. They claim that the inclusion of a hydrogen-ready label did not increase the likelihood that the boiler was chosen. This study fails to account for other renewable fuels used in boilers, such as bioLPG, BioLPG blended with renewable and recycled carbon DME, and even biomethane. Additionally, the survey shows that a rescaled label did not result in more consumers choosing heat pumps: Instead, consumers preferred to repair their existing boiler, or to purchase cheaper and less efficient models of heat pumps. The Consumer survey shows the preferences, and yet the preferred technology for many Europeans is being phased out.

Liquid Gas Europe believes that granting derogations based on building type or specific technical conditions may not be the most suitable approach. A list of all technical solutions where there is no alternative to standalone boilers is entirely dependent on local conditions, as well as cost factors. Ecodesign is concerned with the placing on the market of products, not the down-stream installation. Instead, exemptions should target the product, not the conditions under which installation is not possible. These products include boilers certified to run on renewable energy or that are hybrid-ready (condensing boiler designed to be capable to be connected to a heat pump to create a hybrid heater on the field).

**Affordability should not be underestimated:**

All heating solutions are not equally affordable for consumers. For instance, electrical-based heating systems, such as electric heat pumps, require high levels of insulation in the building before they become effective. Without proper insulation, their efficiency drops. Heat pumps operate differently from boilers and should only be installed if the temperature requirements of the building’s radiators are incompatible with the temperature level that the heat pump can provide, which is usually below 55°C. However, older homes often have radiators that require higher temperatures, e.g. 70° C+, in very cold weather.

An efficient gas boiler costs about €10,000 less to install than a heat pump and guarantees a longer lifespan, while requiring less maintenance. In fact, repair expenses for heat pumps are substantially higher than for boilers due to their relative technical complexity. Unlike in a boiler, components for heat pumps are very expensive to replace if they break. And even hybrids that incorporate a gas boiler to provide high temperature hot water during very cold periods will require building renovation to meet the 115% minimum threshold. Of course, renovation to improve energy efficiency is highly desirable but it can be achieved progressively, in an affordable way, and as it does it will improve energy efficiency and thus reduce building energy consumption.

As the building stock is so heterogenous between Member States, and even within Member States, the most suitable technologies are always relative to the specific needs of the end user, which cannot disregard the characteristics of the building (e.g. type of heating system and building envelope characteristics). Often there are building and installation constraints such that replacement alternatives are difficult to feasible at a cost the consumer can afford. Hence, the Commission should seriously consider the question of affordability when suggesting a complete phase-out of all boilers.