

Energy UK response to Raising Product Standards for Space Heating

Tuesday 25 March 2025

About Energy UK

Energy UK is the trade association for the energy industry with over 100 members - from established FTSE 100 companies right through to new, growing suppliers, generators and service providers across energy, transport, heat and technology. Energy UK's members deliver nearly 80% of the UK's power generation and over 95% of the energy supply for 28 million UK homes and businesses. The sector invests £13bn annually and delivers nearly £30bn in gross value - on top of the nearly £100bn in economic activity through its supply chain and interaction with other sectors. The energy industry is key to delivering growth and plans to invest £100bn over the course of this decade in new energy sources.

The energy sector supports 700,000 jobs in every corner of the country. Energy UK plays a key role in ensuring we attract and retain a diverse workforce. In addition to the Young Energy Professionals Forum, which has over 2,000 members representing over 350 organisations, Energy UK is a founding member of TIDE, an industry-wide taskforce to tackle Inclusion and Diversity across energy.

Executive Summary

Energy UK supports the measures set out in this consultation to improve the efficiency of space heating systems, raising standards for energy customers while reducing carbon emissions.

Overall, Energy UK is calling for alignment with EU standards where possible, and with other areas of policy development such as the Smart and Secure Energy System (SSES) workstream. Alignment with EU regulations will reduce friction across markets and ensure that UK products are compatible. This would lower administrative burden and costs for UK-based manufacturers exporting to these areas.

Interoperability is central to effective demand-side response and consumer choice, as well as avoiding vendor lock-in. The proposals set out in this consultation should align with the SSES workstream, while avoiding any duplicative regulatory requirements on manufacturers.

The consultation highlights the potential role of hybrid heating systems in the transition to Net Zero. Energy UK is technology neutral and, therefore, supports a level playing field for all technologies that have a role in enabling the decarbonisation of heat and lowering bills for energy customers. The [Climate Change Committee's Seventh Carbon Budget](#) estimates that hybrids may meet 6% of heating demand by

2040. But with hydrogen likely to play a negligible role in home heating, these systems will need to be retrofitted by 2050.

The consultation also explores the potential to raise efficiency requirements for gas boilers to 100% by 2035, which would serve to effectively phase out these systems. Energy UK supports regulations to phase out the installation of new carbon emitting gas boilers by 2035 and updating the regulations for product standards could be one means of achieving this. However, we believe the Government should consult more extensively on these proposals as part of a wider strategy to ensure that this ambition is achievable and well understood, rather than delivered via a technical consultation. A significant amount of consumer engagement is needed to support this policy aim and, therefore, the technical consultation is not suitable for securing support for such a change.

If you have any questions about this response or wish to engage with Energy UK and its members, we would welcome further engagement.

Kind regards,

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Consultation Questions

1. Do you agree with lowering the primary energy factor for electricity to 1.9 from mid-2026? Yes/No/Don't know. Please provide evidence or reasoning to support your answer.

Energy UK supports lowering the Primary Energy Factor (PEF) for electricity to 1.9. This supports fairer comparisons between boilers and electric heat pumps, reflecting electricity's increasingly decarbonised supply.

The EU is set to make a determination on its policy approach to lowering the PEF this year. There should be alignment where possible with the EU approach.

Clarity is needed as to how the PEF on the product listing in the Product Characteristic Database or its replacement, the Home Energy Management (HEM) database, will be updated.

The Government should consider applying the same principle to gas, to take into account the efficiency losses in using gas for home heating, as this will provide a fair and level playing field for these systems.

[No response to questions 2-13]

14. Do you have any views on whether the MEPS could be implemented at a faster rate, with tier 1 in mid-2026 and tier 2 in mid-2028? Please provide evidence or reasoning to support your answer.

Overall, Energy UK supports a tiered approach to increases in minimum energy performance standards (MEPS). This allows industry time to adapt while steadily removing lower-performing products from the market. While Energy UK supports the ambition behind the timeframe set out in the consultation, some feedback from industry suggests that manufacturers require two years from the publication of revised standards for the necessary testing and certification to bring a compliant product to market.

It may also be helpful to align the approach to implementing MEPS with that of the EU to reduce administrative and cost burdens for UK businesses exporting products to the bloc.

15. Do you have any views on the interaction between the MEPS proposals for heat pumps and the EU's f-gas regulations? Please provide evidence or reasoning to support your answer.

We note that the European f-gas regulations were tightened last year, and they are still finalising their Ecodesign requirements.

Alignment across the UK market with European regulations will support the production and export of UK-manufactured heat pumps and ensure that UK products remain competitive.

The UK Government should set out its proposals for the UK F-gas phase-down as soon as possible in order to align policy including MEPS and the Clean Heat

Market Mechanism (CHMM) accordingly. Installer training must cover the installation of flammable refrigerants to help implement this policy.

16. What impacts would occur as a result of requiring heat pumps to meet the MEPS for all temperature applications they operate at? Yes/No/Don't know. Please provide evidence or reasoning to support your answer.

Further clarification is needed as to the purpose for testing heat pumps at all temperature applications. Some heat pump products have been designed to operate at a specific temperature. This may be due to the refrigerant used, which is only compatible with a low temperature, for example, and therefore testing the system at different temperatures would not add any value to the customer, but it would increase the cost of product development.

EPC reform in Great Britain could introduce a new heating metric, which will rank heating systems according to information on efficiencies provided by product manufacturers. Changes to the MEPS may result in changes to the ranking of different systems within the EPC, and consideration is needed for how this information may be captured as part of the Product Characteristics Database.

Energy UK is not clear that this is a Yes/No/Don't know question format.

Terminology and testing

17. Do you agree that BS EN 14825:2022 and BS EN 14511-2:2022 are appropriate means of calculating the seasonal space heating energy efficiency for a heat pump, despite the fact that they are currently behind a paywall? Yes/No/Don't know. Please provide evidence or reasoning to support your answer.

Bringing UK testing methods in line with EU will simplify the testing process for manufacturers selling products in both markets.

However, open standards are generally preferred to ensure new market entrants gain easily accessible standards information.

[No response to questions 18 and 19]

20. Do you agree with the proposed definitions for low-temperature, medium temperature and high-temperature application? Yes/No/Don't know. If not, what elements do you recommend should be changed and why? Please provide evidence or reasoning to support your answer.

The definition should accommodate all heat pump technologies. Energy UK supports the proposal by Kensa Group to change 'indoor heat exchanger outlet' to 'refrigerant/water heat exchanger outlet temperature'.

Hot water storage

21. How should regulations define a low-temperature compatible hot water storage tank? What are the key constituent elements of this definition? Please provide evidence or reasoning to support your answer

Any regulation defining a low-temperature compatible hot water storage tank should be broad enough to cover all viable technical solutions, for example thermal batteries, and be agile to include new and innovative products. Regulations should specify how installers can verify compatibility.

22. Do you agree that a heat pump compatible symbol on an energy label would help futureproof hot water cylinders? Yes/No/Don't know. Please provide evidence or reasoning to support your answer.

A heat pump compatible symbol on an energy label will help futureproof hot water cylinders. This will support the electrification of heat by removing barriers to switching from a fossil fuel to a low-carbon heating system. It would address the 'hassle factor' and reduce associated costs, by removing the need to purchase an additional cylinder.

However, industry has concerns over how achievable this is. There are a significant number of variables both in terms of the heat pump system and the water cylinder, and their compatibility. For example, a heat pump system may be connected to a water cylinder with a compatibility label, but the cylinder, or the coil, could be sized incorrectly and this would affect the operation and efficiency of the system. Some manufacturers underline the size of the cylinder itself as determining compatibility, while others suggest the coil size is more important. The Government needs to provide reassurance to industry that it has an approach that is common enough to capture all variables.

This should be communicated through trusted channels to ensure that consumers can make informed purchases. The label should be easy to interpret.

23. Should stratification be incorporated into the requirements of ecodesign (812/2013), to support hot water cylinder heat pump compatibility? Yes/No/Don't know. Please provide evidence or reasoning to support your answer.

Standardised testing for coil performance and stratification is crucial to confirm that cylinders genuinely support low temperature operation.

24. Should coil sizing be incorporated into the requirements of ecodesign (812/2013), to support hot water cylinder heat pump compatibility? Yes/No/Don't know. Please provide evidence or reasoning to support your answer.

The sizing of the cylinder is vital to ensure that properties can accommodate them as we move away from gas boilers and towards heat pumps.

Hybrid heat pumps

25. Do you agree with (a) the proposed definition of hybrid heat pump and (b) adjusting the definition of a heat pump space heater to reduce duplication? Yes/No/Don't know. If not, what elements do you recommend should be changed and why? Please provide evidence or reasoning to support your answer.

Given the increased benefits of heat pumps, Energy UK would prefer to see the focus of regulation and policy development on fully electric heat pumps.

However, hybrid heat pumps may play a role in supporting the transition to low-carbon heat. They should be subject to the same requirements as standalone heat pumps to ensure that customers are protected.

To safeguard consumer experience of hybrid systems, it would be welcome to devise a specific standard relating to this system in line with the advice from the Climate Change Committee whereby hybrid heat pumps would be required to operate in heat pump mode up to 80% of the time.

26. Do you agree that we should set a MEPS at 125% for hybrid heat pumps? Yes/No/Don't know. Please provide evidence or reasoning to support your answer.

Whilst hybrid heat pumps are not widespread compared to fully electric heat pumps, there are cases where they could be used in demand side response services. Raising their efficiency standards could help reduce bills further.

In phase 2 of SSES Tariff Interoperability Working Group, gas tariffs will be included in the tariff standards framework because of their potential use in supporting optimisation of hybrids.

Energy UK would also recommend minimum levels of efficiency during their manufacture to ensure hybrids can be futureproofed.

[no response to questions 27 to 33]

The role of hybrid heat pumps in heat decarbonisation

34. On the balance of pros and cons, should we encourage and enable hybrid heat pumps to play a significant, and potentially widespread, role in heat decarbonisation? Yes/No/Don't know. Please provide evidence or reasoning to support your answer.

The Climate Change Committee's Seventh Carbon Budget forecasts that 6% of heating systems installed by 2040 will be hybrid heat pumps. That the CCC estimates that there will be no role for hydrogen in home heating means that these systems will need to be retrofitted to eliminate emissions from buildings by 2050.

While the focus of regulation and policy development should be on rolling out fully electric heat pumps, there will be some role for hybrid heating systems in line with the CCC's estimations. That the CHMM supports the installation of hybrid heat pumps means that there should be alignment across the heat policy landscape, including in relation to product standards.

As in the response to question 26, gas tariffs will be included in the tariff standards framework because of their potential use in supporting optimisation of hybrids, which will help improve their overall efficiency. Hybrid heat pumps may come under parts of SSES work, with proposals that hybrid heat pumps be required to receive and act upon signals.

Smart controls should be required alongside heat pump systems, to ensure that their performance is optimised, and so that the heat pump element of the system is used the majority of the time to meet heating demand.

35. Do you agree that we should not currently be looking to introduce mandating a minimum efficiency of more than 100%, which would, in effect, phase out installation of standalone fossil fuel boilers? Yes/No/Don't know. Please provide evidence or reasoning to support your answer.

Energy UK supports regulation being introduced that phases out carbon-emitting boilers from 2035. This aligns with the recommendation by the Climate Change Committee in its Seventh Carbon Budget to reinstate the ambition to ensure that all heating systems installed beyond 2035 are low carbon.

However, Energy UK does not support the regulation to achieve this being introduced via this technical consultation. These changes should be introduced as part of broad public engagement efforts, and considered as an element of a strategic consultation that assesses how this phase-out date could be achievable, in terms of market preparedness and consumer buy-in.

The phase out of gas boilers needs to be underpinned by clear communications to customers, such as the Warm and Fuzzy campaign, which Energy UK welcomed.

Part 2: Reducing fossil fuel demand

Fossil fuel boilers

36. Do you agree that all new gas combination boilers ($\leq 45\text{kW}$) placed on the GB market should be able to modulate their maximum output down to 15% without on/off cycling by mid-2028? Yes/No/Don't know. Please provide evidence or reasoning to support your answer.

Energy UK supports a requirement for gas combination boilers to modulate down to 15% output by mid-2028. This reduces cycling losses and aligns with modern energy efficiency standards.

[no response to questions 37 and 38]

39. Do you agree that all combination boilers be supplied with a 60 degrees Celsius ($^{\circ}\text{C}$) low flow temperature factory default setting by early 2026? Yes/No/Don't know. Please provide evidence or reasoning to support your answer.

Energy UK would raise concerns over the 60 degree factory setting, and suggest that this is lowered to 50 degrees.

If a boiler is set at a high flow temperature (like 60°C or higher), radiators installed in the home will likely be smaller, as higher temperatures allow smaller radiators to provide enough heat. However, if a home later switches to a heat pump (with operating temperatures typically $45\text{-}55^{\circ}\text{C}$), these smaller radiators may no longer be effective in heating the home adequately, and will need additional upgrades such as larger radiators and new piping.

Setting the default flow temperature at 50°C instead of 60°C would help to future-proof homes for heat pump adoption by ensuring that their heating systems are already designed to work efficiently at lower temperatures, ultimately requiring more Government subsidy to cover these costs.

40. Do you agree with raising GB requirements so that control Classes I-III are no longer sufficient by mid-2026. Yes/No/Don't know. Please provide evidence or reasoning to support your answer, including any potential costs associated with this proposal.

Energy UK disagrees with raising GB requirements so that control Classes I-III are no longer sufficient. This is because, when choosing a control, a customer may make their choice based on budget constraints. Where a heat network is being connected to multiple homes in a single building, each dwelling needs to have its own controls, and a range of different controls is needed to suit different budgets, therefore Classes I – III will continue to play a role.

41. Please present your views on any potential impacts on heat networks associated with preventing temperature control Classes I-III from the GB market by mid-2026. Please provide evidence or reasoning to support your answer.

There is a risk that this will reduce consumer choice, and a range of controls available for different budgets.

[no response to question 42]

43. Do you agree with the definition of open protocols? Yes/No/Don't Know. Please provide evidence or reasoning to support your answer

Energy UK agrees with the definition of open protocols. However, we note the relevance of a number of factors, as set out below.

Interoperability is central to effective demand-side response, consumer choice, and avoiding vendor lock-in. Ensuring alignment with initiatives like Smart and Secure Energy Systems (SSES) is particularly important to avoid duplicative requirements for manufacturers, as more detail is needed on what 'open protocols' would entail.

SSES will be mandating a 'smart mandate' for certain electric heating appliances (hydronic heat pumps, storage heaters and heat batteries) meaning that they are communications-enabled and able to respond to price and/or other signals by shifting and/or modulating their electricity consumption.

Energy UK suggested in our response to SSES that the smart mandate should be gradually extended to cover all energy smart appliances (ESAs).

The exclusion of certain appliances could add costs to heat pumps and compel the market to shift to the cheapest possible solution, which in turn may not align with lowest carbon option.

An overview of the routes to compliance, particularly to ensure that other commonly accepted open data standards can be used, will help to encourage innovation in the market whilst allowing for the desired outcomes to be delivered.

44. Do you agree all gas combination boilers placed on the market should use open protocols by mid-2026? Yes/No/Don't know. Please provide evidence or reasoning to support your answer.

Energy UK agrees that all gas combination boilers should use open protocols by mid-2026. However, we note the relevance of the following factors, as set out below.

Timelines should be fully aligned with SSES timelines. ESA standards, including the smart mandate, will be operational from around mid-2026 onwards. To ensure manufacturers do not have to conform to two separate standards in a relatively short timeframe, they should be aligned.

Whatever the outcome, an appropriate time period between the publication of the detailed guidance and the introduction of the standard is required. This is because developers and manufacturers require the detailed guidance, not just the legislation, to ensure that they are compliant with the policy.

It is important to note the broader policy initiatives which remain ongoing, such as EPC reform, data and digitalisation and asset registration. Alignment and identification of where SSES overlaps with these milestones is key for successful delivery, with Ofgem's consumer consent platform workstream a key area of crossover for any open protocols used, which may share a customer's data.

Alignment with commonly accepted data exchange protocols in other regions is important to the success of the approach. This is also particularly pertinent with broader alignment with EU policy regulations.

[No response to questions 45-49]

Part 3: Ensuring Effectiveness

Benchmarks

50. Do you agree with the proposed benchmarks? Yes/No/Don't know. Please provide evidence or reasoning to support your answer.

Greater clarity is needed as to whether the benchmark figures set out in the consultation will be targets or minimum standards. More information is also needed as to how frequently these figures will be updated.

Some Energy UK members also have concerns regarding the approach to categorisation. There is a category specifically for ground source heat pumps. However, there are three separate categories for, it is presumed, air source heat pumps that are high-, medium-, and low-temperature, although it is not specified that they are, indeed, for air source. The rationale for these categorisations is not clear.

Compliance, competitiveness, and avoiding circumvention

[no response to questions 51 to 53]

54. Do you agree in practice that manufacturers will dual mark their products with both UKCA and CE markings?

Yes, as this will enable products to be sold across both GB and EU markets. However, dual marking will require manufacturers to undergo two lots of testing regimes. A way forward could be to align product standards with the EU.

[no response to question 55]

56. Do you agree with our proposal to limit the verification tolerance on seasonal space heating energy efficiency for fossil fuel boilers to 4%?

Yes/No/Don't know. Please provide evidence or reasoning to support your answer.

Energy UK supports limiting the verification tolerances for fossil fuel boilers to 4%. This is appropriate in the context of the overall efficiency of gas boiler systems compared to other systems such as heat pumps, as well as their relative carbon impact.

Tight verification tolerances will help prevent underperforming or misrepresented products from being marketed as high-efficiency.

57. Do you agree that the verification tolerance for seasonal space heating energy efficiency for other space heaters and combination heaters, including heat pumps, should remain at 8%? Yes/No/Don't know. Please provide evidence or reasoning to support your answer.

Energy UK supports the verification tolerance of 8% for other space heaters. As set out in the consultation, as heat pumps have far greater efficiencies and far higher MEPS than boilers, a verification tolerance of 8% is a smaller proportion of the overall efficiency than that of a gas boiler. Energy UK therefore supports setting proportionate verification tolerances for these technologies.

[no response to question 58]

59. Do you agree that we should update our legislation to reduce opportunities for circumvention? Yes/No/Don't know. Please provide evidence or reasoning to support your answer.

This is vital to preventing underperforming or misrepresented products from being marketed as high efficiency.

60. Do you agree with the proposed drafting of this in regulation 10 and regulation 15 of the draft SI? Yes/No/Don't know. Please provide evidence or reasoning to support your answer.

While it is important to consider the tested efficiencies of products such as boilers, it is also important that the Government consider what future pathways may be available to leveraging in-use data, or more accurate performance data, to inform calculations and assumptions.

There is often a gap between lab-tested, advertised efficiencies of boilers and what is delivered in the home. Given this disparity in efficiencies compared with in-use performance, there must be alternative measures put in place to generate more accurate assessments for energy performance.

[No response to questions 61-64]

Energy Efficiency Classes

65. Do you agree that setting the threshold for class A at 260% at medium temperature application, and at 325% at low-temperature application, would mean that this band would be vacant at the point of implementation?

Yes/No/Don't know. Please provide evidence or reasoning to support your answer.

It may be that these thresholds need reviewing, as at time of implementation, no heat pumps currently on the market would meet these efficiency levels.

Customers looking for an A-rated heat pump would not find any, possibly leading them to misunderstand the technology's efficiency, and inadvertently discouraging heat pump adoption.

[no response to questions 66 to 69]

70. Should the water heating energy efficiency scale be recalibrated to a 7-band scale, A to G? Yes/No/Don't know. Please provide evidence or reasoning to support your answer.

Water heating efficiency classes should be updated at the same time as space heating, as otherwise this could be confusing to customers having to consider two separate update processes and scale measurements.

[no response to questions 71 and 72]

Label Design

73. Do you agree with the proposal to retain current label requirements on: minimum sizing, Union Flag, name of the supplier and model, energy efficiency scale, noise levels and off-peak capability symbol? Yes/No/Don't know. Please provide reasoning for your answer.

Overall, the approach to energy labelling for space heaters needs to be developed with customers in mind. They need to be simple and clear, and encourage user-friendly labelling that communicates key performance metrics, such as efficiency ratings and relevant icons e.g. heat pump compatible.

[no response to questions 74 and 75]

76. Do you agree with the proposed inclusion of symbols to indicate the fuel(s) used, indicated by a check box system(s) and do the symbols clearly indicate the specific fuel? Yes/No/Don't know. Please provide reasoning to support your answer.

Yes.

This will help make the label easier to understand for consumers.

77. Do you agree with the proposed inclusion of a QR code which enables the user to find further information relating to the appliance? Yes/No/Don't know. Please provide reasoning to support your answer.

Consideration is needed for where the QR code will direct the customer to. It should be noted that in the EU, the QR code directs users to the European Product Registry for Energy Labelling (EPREL) public database, and a UK equivalent is worthy of consideration.

An alternative approach is also needed for digitally excluded customers and vulnerable customers who may struggle to use the QR code.

78. Do you agree that a A+++ to D water heating energy efficiency scale should appear alongside the rescaled A to G space heating classes until the Government has completed a review of water heating? Yes/No/Don't know. Please provide reasoning to support your answer.

Energy UK supports an update to the water heating energy efficiency scale as well as the space heating classes, in order to reduce the risk of customer confusion.

[no response to question 79]

80. Do you agree with the designs for the label when used for heat pump space heaters and combination heaters, as per Images 3 and 4 respectively? Yes/No/Don't know. Please provide evidence or reasoning to support your answer.

Energy UK would recommend further development of the proposals with both industry and end users, as overly complex labels can confuse consumers. The designs should encourage concise, user-friendly labelling that clearly communicates key performance metrics, such as efficiency ratings and relevant icons (e.g., "heat pump compatible").

The terms "LT" and "MT" is somewhat confusing to customers who may not be familiar with the product, and it is not clear what the % and kWe are in reference to.

[no response to questions 81 and 82]

83. Should we look to introduce a new label, at a later date, solely for hybrid heat pumps (rather than continue to use the heat pump label for standalone heat pumps and hybrid heat pumps)? Yes/No/Don't know. Please provide evidence or reasoning to support your answer.

The customer should be provided with information about the performance of both elements of the hybrid system. Consideration is needed for what a hybrid heat pump label should look like and how it can clearly convey the relevant information to the customer.

84. Do you agree that the same requirements for labelling of visual advertisements should apply to distance selling through the internet and not through the internet? Yes/No/Don't know. Please provide reasoning to support your answer.

Energy UK supports adopting the same requirements for sales through the internet and not through the internet to achieve consistency in regulations.

[No response to questions 85-90]

91. Do you agree that the energy labelling proposals should take effect from mid2026 and that new energy labels should be required from this date? Yes/No/Don't know. Please provide evidence or reasoning to support your answer.

One Energy UK member that manufactures heat pumps has provided feedback that four months is not sufficient time to prepare for the updated requirements. It has instead called for 2 years from the date of publication of the regulatory changes to update its operations.

92. Would it be useful to complete an evaluation earlier than 2034, if so, when and why? Yes/No/Don't know. Please provide evidence or reasoning to support your answer.

There is significant innovation in low-carbon heating products, and with Government policy driving investment in UK manufacturing, Energy UK would support consideration for bringing this date forward to ensure that the new energy labels are fit for purpose and keeping pace with market changes.

[No response to questions 93-96]