



Elmhurst Energy's final response to:

Phasing out the installation of fossil fuel heating systems in businesses and public buildings off the gas grid



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Introduction

Elmhurst Energy are pleased that BEIS are consulting on "Phasing out the installation of fossil fuel heating systems in businesses and public buildings off the gas grid" and as such we are delighted to respond to each question in turn.

The consultation asked 26 questions and we have answered them all below. We hope you find the responses considered and useful for taking the matter forward in a progressive manner.

Executive Summary

In summary, we support this scheme that aims to incentivise and encourage the phasing out of fossil fuels in homes especially off the gas grid. As an accreditation company, we are open to measures which will lead to more sustainable homes by providing affordable solutions to the public to achieve these goals.

The key points throughout this consultation response are as follows:

- For properties to be considered for a heat pump, or other sustainable technology where this is not appropriate, an EPC should be issued first to measure these improvements and to recommend the most suitable solution.
- The retrofit standards (PAS 2038) should be followed for this scheme to move forward. By using these recognised standards, a whole building approach should be adopted before either a heat pump or other appropriate measures are installed to identify any unintended consequences.
- We support incentives being issued to install low carbon heat or other appropriate measures and reducing barriers with green levies to encourage and support the transition for the public.

Questions and Answers

1. Do you agree with the principle of using the natural replacement cycle to phase out the installation of fossil fuel heating systems in non-domestic buildings off the gas grid? Yes/No. Please explain your response. Timelines for implementing the proposals

Yes, however we feel that if there are financial incentives available for the installation of low carbon heating systems that the phasing out of the installation of fossil fuel heating systems may be accelerated before the natural replacement cycle. It is also important to consider the difficulties that may be experienced in the policing of policy, and how data will be collected and handled to ensure compliance.

For commercial buildings, a more planned or scheduled approach maybe more appropriate to factor in occupant needs. Using a process such as PAS 2038 could allow for better management of this.

2. Do the 2024 and 2026 timescales for introducing this policy provide sufficient lead in time for non-domestic off-gas grid consumers to prepare for their transition to low carbon heat? Yes/No. Please provide evidence to support your response where possible.

We feel that it should be implemented as soon as possible however it does rely on grid supplied electricity being decarbonised and more affordable. The timescales maybe unrealistic to some non-domestic buildings when considering the occupants within the buildings. We recommend that PAS 2038 is used to identify a medium term plan for the building, ensuring quality and a whole building approach is adopted. Moving to low carbon heat is a short term fix. A whole building approach with energy efficiency at the forefront is the only real long term solution.

3. Would an implementation date of 2024 (for large buildings) and 2026 (for smaller buildings) provide sufficient lead in time for industry to prepare for the increase in demand? Yes/No. Please provide evidence to support your response where possible.

We feel that it should be implemented as soon as possible however it does rely on grid supplied electricity being decarbonised and more affordable. The timescales maybe unrealistic to some non-domestic buildings when considering the occupants within the buildings. We recommend that PAS 2038 is used to identify a medium term plan for the building, ensuring quality and a whole building approach is adopted. Moving to low carbon heat is a short term fix. A whole building approach with energy efficiency at the forefront is the only real long term solution.

4. Do you agree with our proposal to introduce this policy for the largest buildings first? Yes/No. If not, please explain your reasoning, using evidence to support your response where possible.

If all buildings are being targeted, we see no benefit to larger buildings being targeted first by 2 years.

5. Do you agree with our proposals to take a heat pump first approach to the replacement of fossil fuel heating systems in off-gas grid non-domestic buildings? Yes/No. Please explain your response.

In some circumstances the heat pump first approach is appropriate however in a number of non-domestic buildings, heat pumps are not appropriate. Within the Future Building Standard consultation released last year it highlighted different demand and building types that maybe appropriate to adopt heat pumps. It shows a number of building types that are not suitable for heat pumps. See table 2.1 below taken from the consultation.

| Demand type | Building type |
|--|---|
| Type 1 demand: space heating demand more suitable for heat pumps. Domestic hot water demand more suitable for point-of-use or heat pump. | Offices, multi-residential buildings, prisons, primary schools, secondary schools, retail units, community centres, courts, libraries, museums, airport terminals, data centres, theatres |
| Type 2 demand: space heating demand more suitable for heat pumps. High domestic hot water demand, which may be less suitable to be provided using point-of-use or heat pumps. | Hotels, hospitals, other health care buildings, restaurants |
| Type 3 demand: space heating demand less suitable for heat pumps. Domestic hot water demand more suitable for point-of-use or heat pump. | Retail warehouses, distribution warehouses, industrial process buildings, sports halls |

We do not believe it necessary to promote one technology over another. As long as the target is clear and enforced, the relatively sophisticated commercial market are capable of making the make best cost effective decisions for their particular circumstances.

There must be a focus on carbon and energy reduction. It is important that a whole building approach is adopted following PAS 2038 in conjunction with the relevant competent individuals, as not all buildings are suitable for heat pump installation.

6. Do you agree that most non-domestic off-gas grid buildings will be suitable for a heat pump? Yes/No. Please provide evidence to support your response, including examples of situations where the heat and hot water demand could not be met by a heat pump.

In some circumstances the heat pump first approach is appropriate however in a number of non-domestic buildings, heat pumps are not appropriate. Within the Future Building Standard consultation released last year it highlighted different demand and building types that maybe appropriate to adopt heat pumps. It shows a number of building types that are not suitable for heat pumps. See question 5 for more details.

There must be a focus on carbon and energy reduction. It is important that a whole building approach is adopted following PAS 2038 in conjunction with the relevant competent individuals. The PAS 2038 would identify all of these issues.

**7. What types of buildings are likely to fall into the 'hard to treat' category?
Please provide evidence to support your response.**

Within the Future Building Standard consultation released last year it highlighted different demand and building types that maybe appropriate to adopt heat pumps. It shows a number of building types that are not suitable for heat pumps. See table 2.1 below taken from the consultation. This is based on their heat and hot water demand and could be used to assist in identifying "hard to treat". See question 5 for more details.

There must be a focus on carbon and energy reduction. It is important that a whole building approach is adopted following PAS 2038 in conjunction with the relevant competent individuals. The PAS 2038 would identify all of these issues.

8. What low carbon heating systems do you foresee being used as alternatives to heat pumps in 'hard to treat' buildings? Please provide evidence to support your response.

With the decarbonisation of the grid, any electric heating system will become a low carbon system. We do not believe it necessary to promote one technology over another. As long as the target is clear and enforced, the relatively sophisticated commercial market are capable of making the make best cost effective decisions for their particular circumstances. There must be a focus on carbon and energy reduction. It is important that a whole building approach is adopted following PAS 2038 in conjunction with the relevant competent individuals, as not all buildings are suitable for heat pump installation.

9. Will these alternative low carbon heating systems align with the net zero, sustainability, air quality and consumer experience criteria set out as bullet points in the 'Alternative low carbon systems' section? Please provide evidence to support your response.

Yes it will as long as a robust, quality assured and government approved process is followed that ensure consumer protection and mitigates any unintended consequences. Following similar processes used within the domestic section such as PAS 2035 and the use of TrustMark but applied with PAS 2038 would ensure alignment with the criteria.

10. Are there instances where both heat pumps and alternative low carbon heating technologies will be unsuitable for meeting a building's space heating and hot water demands – i.e., 'untreatable buildings'? Yes/No. If yes, how and when do you foresee low carbon heating technologies developing to overcome these challenges? Please provide evidence to support your response.

No strong opinion

11. How do you foresee the costs associated with installing a heat pump in non-domestic buildings changing over the next 10 years? Please consider a range of system sizes in your response and provide evidence to support your answer.

Government should show commitment to long term regulations, targets and goals to show that the demand needs to remain. This will encourage innovation and reduce associated costs.

12. How do you foresee the costs associated with installing alternative low carbon heating systems in non-domestic buildings changing over the next 10 years (i.e., other than heat pumps)? Please consider a range of system sizes in your response and provide evidence to support your answer.

No strong opinion. Government should show commitment to long term regulations, targets and goals to show that the demand needs to remain. This will encourage innovation and reduce associated costs.

13. How can the government support cost reductions in low carbon heating technologies suitable for non-domestic buildings, particularly heat pumps? Please consider buildings of differing sizes and energy use

There are several methods that the government could use to support the low carbon heating technologies such as;

- Subsidies to make low carbon heat systems more affordable
- Funding for businesses to aid with the cost of the transition
- Tax breaks to incentivise business to transition to low carbon heat
- Regulations and disincentives to discourage fossil fuel use

14. How accurate is our indicative modelling for the cost of transitioning to low carbon heat? Please provide evidence to support your response. This should include details on the types of buildings the costs are associated with, including its floor area (m²), energy use (kWh) and the type of heating system it currently uses.

No strong opinion

15. How can we support the green finance market to develop the products and investor demand that businesses will need to fund their transition to low carbon heat? Back-up systems

There are several methods that the government could use to support the green finance market such as;

- Subsidies to make low carbon heat systems more affordable
- Funding for businesses to aid with the cost of the transition
- Tax breaks to incentivise business to transition to low carbon heat
- Encourage innovation through competition

16. In what situations are fossil fuel back-up systems common and how frequently are they used? Please provide evidence to support your response.

Whilst we have no evidence, we believe fossil fuel back-up systems are common in some building types such as hospitals and

17. What low carbon back-up solutions are available for buildings with a heat pump as their primary system? Please provide evidence to support your response.

With the decarbonisation of the grid, any electric heating system will become a low carbon system such as direct electric panel heaters. We do not believe it necessary to promote one technology over another. As long as the target is clear and enforced, the relatively sophisticated commercial market are capable of making the make best cost effective decisions for their particular circumstances. There must be a focus on carbon and energy reduction.

18. Taking into consideration existing certification schemes, are businesses adequately protected when installing a low carbon heating system up to 45-kilowatts? Please provide evidence to support your response.

We believe that PAS 2038 will provide adequate protection for businesses during the installation of low carbon heating systems. Utilising this process would ensure consumer protection.

19. Do businesses that install low carbon heating systems with a capacity over 45-kilowatts require consumer protection? Yes/No. If Yes, how should this differ from standards available for installations up to 45-kilowatts?

We believe that PAS 2038 will provide adequate protection for businesses during the installation of low carbon heating systems. Utilising this process would ensure consumer protection. This uses PAS2030 seen in the domestic sector which aims to provide consumers with the assurance required to install low carbon heating systems. This will also aid business to identify competent installers, ensuring that work carried out is to the appropriate standard and follows a quality assured process.

20. Do you have any views on how best to ensure compliance with the proposed regulations laid out through this consultation? Please provide evidence to support your answer. Other trigger points to reinforce the policy

We feel that to ensure compliance with the proposed regulations, that this should be incorporated within the EPC methodology.

21. What is the typical lifespan of a non-domestic heating system used in an off-gas grid building? How does this vary by system capacity? Please provide evidence to support your response, which should include the type and size of heating systems.

No strong opinion

22. What are the potential implications for businesses of introducing an end date by which all buildings must have transitioned to low carbon heating (e.g. in the early 2040s)?

The implications for businesses is dependent on the level of funding available. SMEs may struggle with the transition to low carbon heating due to the financial strain this would place on them. On the other hand, if there is funding available this will help to incentivise businesses to transition, and may even ensure that the transition is completed in some cases before the imposed end date.

23. What are the potential implications for businesses of introducing trigger points for installing a low carbon heating system, in addition to the natural replacement cycle, such as at the point of let or sale?

We feel it is important that trigger points must be in line with funding opportunities or other financial incentives, to maximise the adoption of low carbon heating systems by businesses. In line with other legislation such as Minimum Energy Efficiency Standards (MEES), businesses are already in a position to improve their buildings, so the proposals and MEES legislation trigger points are essentially concurrent to one another.

24. Do you have any evidence on how groups protected under the Public Sector Equality Duty may be affected by our proposals to phase out high carbon fossil fuel heating in nondomestic buildings off the gas grid?

No strong opinion

25. Do you have any views on what more could be done to ensure businesses and communities affected by our proposals experience a smooth transition to low carbon heat? Please provide evidence to support your answer.

We believe that PAS 2038 would ensure a smooth transition to low carbon heat, by ensuring that the entire process from initial assessment to installation is accounted for. We also feel that raising public awareness in the importance of low carbon heat would further ensure a smooth transition process.

If there is funding available this will help to incentivise businesses to transition, and may even ensure that the transition is completed in some cases before the imposed end date.

26. Please use this space to provide any further views not already captured in your responses to the previous consultation questions.

We feel it is important to ensure that all assessments and work carried out is completed by competent individuals to ensure the accuracy of work and ensure business confidence in the approach and consumer protection it withstanding. We also feel that the importance of overheating assessments and air tightness of the building must be taken into consideration when approaching the improvement of energy performance of buildings. Overall, a whole building approach via PAS 2038 is the long term solution to decarbonisation and achieving net zero.



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