



Department for
Business, Energy
& Industrial Strategy

Hydrogen for heat

Facilitating a 'grid conversion' hydrogen heating trial

Government response to consultation

April 2022



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Introduction

Replacing natural gas with low carbon hydrogen in all or in parts of the gas grid is potentially an option for decarbonising heat in buildings. However, unlike more established technologies such as heat pumps and heat networks, 100% hydrogen for heat is not yet an established option. Further work is required to fully assess the feasibility, costs, and benefits.

Government is working with industry, regulators, and others to deliver a range of research, development, and testing projects to obtain the required evidence. As part of this, the Government's Ten Point Plan for a Green Industrial Revolution set out the goal of supporting industry to deliver a neighbourhood trial by 2023, a village scale trial by 2025 and a potential hydrogen heated town before the end of the decade. The local trials and planning work, together with the results of a wider research and development and testing programme, will enable strategic decisions in 2026 on the role of hydrogen for heat decarbonisation and whether to proceed with a hydrogen heated town.

Government expects that the hydrogen heating village trial will involve between 1,000-2,000 meter points and will be a grid conversion trial, meaning the existing local gas network will be converted from carrying natural gas to hydrogen in the chosen village trial area. It is anticipated that it will include a range of property types and both domestic and commercial consumers. For consumers in the trial area, appliances using natural gas will need to be replaced with hydrogen-compatible equivalents or alternative options, such as electric cookers and heating systems. The Gas Distribution Network operator(s) (GDN) delivering the trial will be required to offer an attractive consumer offer for participants, as well as viable alternative options for consumers who do not wish to or cannot participate in the trial.

The location of the village trial has not yet been selected. In July 2021, the Department for Business, Energy and Industrial Strategy (BEIS) and the Office for Gas and Electricity Markets (Ofgem) wrote to the GDNs¹ inviting them to submit outline proposals to deliver the village trial. These proposals have now been received and are being assessed ahead of Ofgem's decision on which proposal(s) to fund through to detailed planning. We intend to confirm the trial location in 2023.

BEIS ran a consultation on "Hydrogen for heat: facilitating a grid conversion hydrogen heating trial". It sought views on proposals to legislate to enable the GDNs to successfully deliver the hydrogen village trial. The consultation was published at the same time as the Hydrogen Strategy² on 17th August 2021 and closed on 28th September 2021³. This document is the Government response.

¹ Open letter to GDNs: <https://www.ofgem.gov.uk/publications/hydrogen-consumer-trial-open-letter-gdns>.

² The UK Hydrogen Strategy: <https://www.gov.uk/government/publications/uk-hydrogen-strategy>.

³ Hydrogen for heat consultation: <https://www.gov.uk/government/consultations/hydrogen-for-heat-facilitating-a-grid-conversion-hydrogen-heating-trial>.

Summary of stakeholder responses to the consultation proposals

The consultation included questions on two areas. These were:

- The legal framework for a grid conversion trial and our proposals to legislate to give powers to GDNs so that they can confidently and safely set up, run, and conclude a grid conversion trial; and
- Where we may need to make amendments to the existing regulatory framework or introduce new legislation to protect consumers.

The questions in the consultation were as follows:

1. Please list the major activities necessary to set up, run, and conclude a grid conversion trial, to ensure that premises and the gas distribution network are ready to use hydrogen for heating.
2. Do you agree with our view that changing existing legislation would help ensure that GDNs can deliver grid conversion trials?
3. List any other amendments to existing legislation which you consider would be necessary to ensure that GDNs could effectively set up, run, and conclude a grid conversion trial.

The consultation document presented an example framework of consumer protections for those living in the trial area and asked the following questions:

4. Which aspects of a grid conversion trial could lead to consumers being treated unfairly or not being protected?
5. Which of the consumer protections we have listed are necessary to ensure that energy consumers are protected in a grid conversion trial? Please explain why they are necessary.
6. Are there other consumer protections not set out which would be necessary to implement? If so, please explain why they are important.
7. How should each of the consumer protections you have listed in response to questions 5 and 6 be implemented?

We received 18 written responses to the consultation document. Seven came through the Citizen Space website, with the remainder replying to a dedicated mailbox, hydrogenheatingtrial@beis.gov.uk. The full list of organisations that responded can be found in Annex A.

Not all respondents answered each question directly and answers were of varying levels of detail.

In addition, in August and September 2021 BEIS held virtual meetings with 23 stakeholder organisations with an interest in hydrogen for heat, ranging from appliance manufacturers to trade associations, charities and think-tanks, as part of the consultation exercise. The full list of these stakeholders is also included in Annex A.

The majority of responses to the consultation and virtual meetings were broadly supportive of our proposals to change legislation to enable the delivery of a grid conversion and virtually all respondents agreed with the consumer protections suggested in the consultation document.

Summary of the government response to stakeholder feedback

Following the consultation and a review of the relevant legislation the government intends to proceed with the proposed legislative amendments required to facilitate hydrogen heating grid conversion trials, alongside measures to strengthen consumer protection for those in the trial area. These changes will ensure that the GDN running the village trial can do so in a safe and timely manner and that consumers are protected.

In summary, we are proposing to introduce primary legislation in order to:

- extend the GDNs existing powers of entry to ensure that consumers in the trial area can be safely connected to hydrogen instead of natural gas, and to cover the full range of in-home alterations which may be needed to conduct a safe hydrogen trial, such as replacing appliances and installing and testing safety valves. It is anticipated that GDNs will only ever use these powers of entry as a last resort to ensure consumer safety, and only once all other attempts to contact property owners and reach an agreement are exhausted;
- enable the Secretary of State for Business, Energy and Industrial Strategy (SoS) to make regulations requiring the GDNs to follow specific processes to engage and inform consumers in an appropriate way about the trial; and
- enable the SoS to make secondary legislation (through regulations or a code of practice), for the purposes of ensuring that consumers are protected before, during and after the trial.

These changes to legislation will only apply for the purposes of a hydrogen grid conversion trial.

Responses to individual questions are set out in the remainder of this document. For questions 1, 2 and 3 individual government responses are provided. For questions 4, 5, 6 and 7, a single government response has been provided as the responses received covered similar themes.

Analysis of responses to consultation questions

Question 1

List the major activities necessary to set up, run, and conclude a grid conversion trial, to ensure that premises and the gas distribution network are ready to use hydrogen for heating.

Summary of responses

We received 16 responses to this question, although some responses referred to the reply from other organisations or did not directly answer the question. The responses ranged from setting out at a high level the project stages that would be required for a trial, to detailed technical issues that would have to be resolved before a trial could proceed. Beyond answers that set out the main stages of delivering an engineering / infrastructure project, common themes included:

- The need to ensure that an appropriate and robust public engagement and communication strategy is in place to deliver clear and consistent messaging to consumers. This messaging should cover the options available to individual consumers and detail the work that would need to be undertaken within their properties. Specific suggestions to deliver this included having a set of Frequently Asked Questions or having a local “show home” demonstration that consumers in the village trial area could visit.
- Ensuring the GDN running the village trial undertakes appropriate information gathering to gain a full understanding of the village trial area. This would need to include information on properties, such as their suitability for conversion, pipework, and the existing gas appliances. It should also include an understanding of the consumers and the socio-economic profile of the area and identify instances of fuel poverty and any vulnerable consumers.
- The need to understand and resolve the technical considerations of using hydrogen as a domestic heating fuel and the conversion of properties to its use. Specific examples included: understanding the characteristics of hydrogen as a gas; compatibility with the existing infrastructure; how to ensure accurate metering of gas use; and the occurrence and impact of combustion by-products, such as nitrogen oxide. Where these considerations were related to safety, there were references to the need for a robust safety case and the involvement of bodies such as the Health and Safety Executive (HSE).
- The need for appropriate planning to ensure that the consumer experience is positive and that consumers receive accurate billing and retain choice in their supplier.

Government response

Many respondents agreed on the major activities needed for the village trial to take place. The themes listed above reflect some of the information that government will need to see and consider as part of the village trial selection process. This includes:

- A robust public engagement strategy for consultation with communities and consideration of appropriate methods of communication to ensure that all consumers can make informed decisions regarding their involvement in the village trial.
- A strategy for establishing consumer requirements. This would initially be expected to be desk-based research on trial locations including the population and range of gas consumers. As the GDNs develop proposals in more detail, they will need to carry out additional focussed research and surveys, to obtain a detailed understanding of the trial area and properties.
- A strategy for ensuring fair treatment for all gas consumers in the village trial locality including the consumer “offer” and options for consumers / businesses who do not wish to or cannot participate.
- A Safety Case Development Strategy, which is compliant with the relevant health and safety regulatory framework for ensuring safety overseen by HSE and founded on the Health and Safety at Work Act 1974. This is expected to draw on the existing evidence that has been developed in this area, including for example the Hy4Heat innovation programme⁴.
- A statement of the infrastructure requirements and options identified for meeting requirements for hydrogen supply and resilience.

⁴ Hy4Heat Programme - www.hy4heat.info/.

Question 2

Do you agree with our view that changing existing legislation would help ensure that GDNs can deliver grid conversion trials?

Summary of responses

We received 14 responses to this question. The question asked for a yes or no answer and provided the opportunity for further commentary, which was taken up by a small number of respondents. Respondents agreed that changing existing legislation would have a positive impact on the delivery of grid conversion trials. Although a few respondents suggested that amending legislation was not strictly required, they noted that alternatives such as derogations and exemptions would be costly and time-consuming. Other common themes included:

- Agreement from respondents that all existing gas connections within the trial would need to be moved away from natural gas to ensure the safe delivery of the trial and that clear powers to do this would be required where consumers could not be successfully engaged or contacted.
- Acknowledgement of the need for changes to be flexible enough to accommodate the developing plans for the village trial.

Some respondents also expressed uncertainty as to whether the existing powers of entry would apply to properties being converted to hydrogen as part of a hydrogen grid conversion trial.

In addition, some answers linked the need to change legislation with consumer protection (covered in more detail in the response to the questions 4-7).

Other individual responses also suggested that consideration may need to be given to legislation and regulations related to the alternative heating options offered in the village trial or pointed to changes that may be required to facilitate any wider roll-out of hydrogen.

Government response

The village trial will deliver critical real-world evidence on the practicalities of converting the gas grid and individual properties to hydrogen and using hydrogen for heating and cooking. This evidence is needed to take strategic decisions in the role of hydrogen in heating in 2026 and cannot be obtained by other means. It is therefore important that the trial can proceed in a safe, effective and timely way. We have reviewed the relevant legislation in detail and discussed our proposals with experts and key stakeholders, including through the consultation process. Based on this analysis and evidence, the Government intends to make the following changes to legislation to facilitate the village trial, while ensuring consumer protection:

- Amend the existing powers of entry set out in the Gas Act 1986 so that GDNs can effectively and safely carry out the activities needed to deliver a grid conversion

hydrogen heating trial. Specifically, with the amended powers, the GDNs will be able to cover the full range of in-home alterations which may be needed for safe hydrogen trialling, such as replacing appliances and installing and testing safety valves; and to disconnect the gas supply to ensure consumer safety as hydrogen cannot be piped safely into a property which is not ready for it. This could happen where consumers have not agreed either to switch to hydrogen or take up an alternative heating offer (for instance, in the case of a vacant property). It is expected that such powers would only be used as a last resort where all other reasonable forms of engagement have been exhausted, and in compliance with the requirements already set out in legislation, similar to how the GDNs exercise their existing powers of entry.

- Enable the SoS to make regulations requiring GDNs to follow specific processes to engage and inform consumers in an appropriate way about the trial.
- Enable the SoS to make regulations and / or issue a code of practice in relation to consumer protections for the purposes of a hydrogen grid conversion trial. The government response to questions 4, 5, 6 and 7 provides examples of how this might be used.

Question 3

List any other amendments to existing legislation which you consider would be necessary to ensure that GDNs could effectively set up, run, and conclude a grid conversion trial.

Summary of responses

We received 12 responses to this question. Of these, two referred to answers provided to other questions and these have also been considered. Common themes included:

- Specific aspects of the existing gas regulatory framework that may need to be amended, including that:
 - The Gas (Safety and Management) Regulations 1996 state that the concentration of hydrogen that can be injected into the UK gas network is 0.1%; and:
 - The calorific value in the Gas (Calculation of Thermal Energy) Regulations 1996 relates to methane and not hydrogen.
- Suggestions that new criminal offences could be created. For example, to prevent necessary activities, such as disconnection of gas supplies, from being obstructed.
- Recognition that legislative changes and other arrangements may be required specifically for consumers who opt out of the trial and switch to the alternative option, with guidance provided to the lead GDN on how it will engage with consumers who do so.

Respondents also noted:

- The need to ensure that individuals undertaking work on the installation and maintenance of hydrogen systems have the appropriate training and are suitably qualified and skilled.
- That metering is currently the responsibility of gas suppliers and questioned whether, for the purposes of a hydrogen trial, this should be the responsibility of the GDN⁵ instead.

Government response

Our proposals for changes to primary legislation are set out above. Together with HSE and Ofgem, we are considering the other issues raised by respondents alongside additional information learned as the GDNs develop detailed proposals for the village trial. Any resulting further legislative or regulatory changes will be set out in more detail in due course.

Regarding the specific themes from the responses:

- Training and Skills - there is a robust regulatory framework for ensuring safety founded on the Health & Safety at Work Act 1974 and the Gas Safety (Installation & Use) Regulations 1998. As part of their developing plans, the GDNs will need to set out how they intend to comply with this regulatory framework, including a plan to develop and implement the training needed to ensure the competence of individuals installing and maintaining hydrogen systems. To complement this, the Hydrogen Skills and Standards for Heat Programme⁶ is developing enabling standards for domestic and non-domestic installations and associated accredited training standards.
- Gas (Safety & Management) Regulations 1996 – the Gas (Safety & Management) Regulations 1996 do not apply to 100% hydrogen. However, HSE will regulate the village trial using these Regulations as an established framework alongside the powers under the Health and Safety at Work Act 1974.
- Metering and Billing and the Gas (Calculation of Thermal Energy) Regulations 1996 – we are working with the GDNs, Ofgem and other delivery partners to ensure that billing and payments for the trial are no more complicated than consumers' current arrangements, and an appropriate approach is developed to the metering and billing of hydrogen so that consumers can continue to understand their gas bill.
- Criminal offences – there are no plans to introduce new criminal offences for the purposes of the village trial as the existing enforcement regime will apply.
- Alternative heating options – alternatives to hydrogen, e.g., heat pumps, storage heaters and heat networks, are already established technologies. This means that the existing frameworks and protections for each technology will apply to these consumers. As plans for the trial develop, we will continue to review whether any regulatory changes

⁵ Under the terminology of the Gas Act 1986 and subsidiary legislation and regulations the GDNs are considered Gas Transporters.

⁶ Hydrogen Skills and Standards for heat programme - <https://www.gov.uk/government/publications/hydrogen-skills-and-standards-for-heat>.

are required in relation to the proposed alternative heating options, working alongside the GDNs and their evolving proposals.

Question 4

Which aspects of a grid conversion trial could lead to consumers being treated unfairly or not being protected?

Summary of responses

We received 14 responses to this question. There was general consensus that, without mitigations put in place, the trial could have an adverse impact on consumers in the trial area. Common themes included:

- The need to protect consumers from financial impacts arising from either:
 - The higher cost of hydrogen relative to natural gas; and / or
 - The installation costs related to deploying hydrogen infrastructure in the village trial area, the conversion of homes, or works at the end of the trial.
- The choice to opt out of the hydrogen trial and be provided with an alternative heating solution.
- Suggestions there should be specific provisions for consumers who are experiencing fuel poverty in the village trial area.
- The need for consistent and clear messaging and for its delivery to be tailored to the needs of consumers. Comments also highlighted the importance of information being provided in a timely manner, both in advance of the trial starting, and at key delivery points throughout its duration. One respondent suggested that standard internal approaches to public communication within the GDNs may need to be reviewed with regard to village trial activities to ensure that messaging to consumers is effective.
- That appliances and equipment installed as part of the village trial and the level of service would need to meet a quality and standard equivalent to current systems. This should apply to both those consumers who convert to hydrogen and those provided with alternative heating solutions.
- The potential for consumers to experience disruption as part of the village trial. This could include the disruption to their gas provision during the switchover or disruption to their properties caused by installation works at the beginning and possibly at the end of the village trial.
- That consumers should retain a choice over their energy supplier and tariff.

For questions 4, 5, 6 and 7, a single government response has been provided as the responses received covered similar themes.

Question 5

Which of the consumer protections we have listed are necessary to ensure that energy consumers are protected in a grid conversion trial?

Summary of responses

We received 13 responses to this question with the majority expressing clear agreement with the consumer protections listed in the consultation document.

The consumer protections most commonly highlighted by respondents were:

- That additional protections should be implemented for vulnerable consumers and those experiencing fuel poverty, for example ensuring that vulnerable consumers were appropriately and sufficiently engaged at various stages throughout the village trial. Suggested approaches included appointing a consumer champion and requiring GDNs to contact consumers at specified points in their disconnection period;
- That consumers are not financially disadvantaged from being in the village trial area;
- That comprehensive and accessible information and guidance is made available to village trial participants; and:
- That the future billing methodology is made clear in customer information packs.

A number of comments stated that clear guidance would be particularly important in relation to financial protection, what could happen at the end of the trial and the routes for dispute resolution and redress.

For questions 4, 5, 6 and 7, a single Government response has been provided as the responses received covered similar themes.

Question 6

Are there other consumer protections not set out which would be necessary to implement?

Summary of responses

We received 10 responses to this question. Respondents provided both suggestions for additional consumer protections, and issues that need further consideration as we develop the policy, as summarised below.

Suggestions for additional consumer protections included:

- That consumer protections should apply to businesses as well as individuals, particularly in cases where there could be loss of earnings related to the switchover.
- That consumers should have the option to change their minds about whether to convert to hydrogen or an alternative heating option.
- Informing consumers on how their data would be used and protected.

Among the issues highlighted by respondents for further consideration were:

- The existing right to connect.
- That there should be distinction in the application of some consumer protections between the impacts on, and rights of, the community versus those of the individual. For example, when considering how to ensure fair treatment for all, a respondent stated that the decision for what happens at the end of the trial should be made by the community, but this might not seem fair from an individual perspective.
- The impacts of the trial on both landlords and tenants.
- Changes in ownership and occupancy that might occur during the trial.
- How the trial may disrupt current practices in relation to cooking and heating.

For questions 4, 5, 6 and 7, a single Government response has been provided as the responses received covered similar themes.

Question 7

How should each of the consumer protections you have listed in response to questions 5 and 6 be implemented?

Summary of responses

We received 10 responses to this question although not all responses provided specific measures for implementing the consumer protections. Responses included:

- The importance of community engagement.
- The suggestion of a consumer champion or hydrogen ombudsman.
- That consumer protection should be used as a criterion for assessing proposals.

Respondents also emphasised the importance of ensuring that consumers are not financially disadvantaged. Of the two respondents who did not provide specific measures for implementing the consumer protections, one mentioned they did not agree with the use of blue and green hydrogen in domestic properties, and one did not have any further suggestions.

For questions 4, 5, 6 and 7, a single Government response has been provided as the responses received covered similar themes.

Government response to questions 4, 5, 6 and 7

Consumer protection is vital, particularly considering the novel nature of the hydrogen heating grid conversion trial. The impact on consumers has been and will continue to be a key consideration in the development of the trial and ensuring consumer protection will be embedded in its delivery. We have used the responses received from the consultation to inform the consumer protection framework that we have developed to govern the trial.

Building on what we outlined in the consultation document, we commit to the consumer protection framework set out below. These protections are intended to apply to domestic and non-domestic consumers in the trial area.

Consumers within the trial area will continue to be protected under the provisions in existing consumer legislation and the gas supply regulatory framework. These provisions include conditions in the licences that Ofgem grants to regulated entities within the gas value chain, industry codes such as the Retail Energy Code, in addition to the protections set out in primary and secondary legislation such as the Consumer Rights Act 2015 and the Gas (Standards of Performance) Regulations 2005.

Over and above this, we have a number of levers available to us. These include amending standard licence conditions and putting requirements within project funding agreements. As the trial proposals develop, we may decide it is necessary to make further legislative changes as backstop protection, so we intend to introduce legislation to enable the SoS to make secondary legislation and / or a code of practice focused specifically on consumer protections. The following sections summarise how we intend to deliver consumer protection for the village trial.

Transparency - the GDNs are required to have a robust engagement strategy as part of their proposals to ensure that all consumers within the village trial area understand how the trial will affect them and are able to communicate their views. It will include providing comprehensive and accessible information and guidance about the trial and the options for participation, in order to enable consumers to make informed decisions about whether they opt for hydrogen heating or an alternative heating option.

Part of this information will also include how consumers' data will be used and protected. Standard data protection legislation and principles will apply, and we would require the GDN running the trial to inform consumers of any relevant rights.

As outlined in the response to question 2, we also intend to introduce legislation to enable the SoS to make regulations requiring the GDNs to follow specific processes to engage and inform consumers in an appropriate way about the trial.

Appropriate oversight and redress – Ofgem and HSE will provide regulatory oversight of the trial, as per their respective remits. We, together with Ofgem and HSE, are also undertaking further work to identify where other changes, for example to licence conditions, may be needed. The GDNs and their delivery partners' conduct will also be monitored through the agreements that will be put in place to fund the trial.

Existing redress routes will continue to apply. Government is exploring if and how any additional arrangements could be implemented to ensure that consumers are able to receive independent advice and assistance on resolving any disputes that specifically arise in the context of the trial.

Fair treatment for all – fair treatment is already covered in existing legislation, including the Consumer Rights Act 2015, the Consumer Contracts (Information, Cancellation and Additional Charges) Regulations 2013 and in the gas licence conditions. As detailed plans for the trial are developed, we and the GDNs may identify specific further measures; for example, to address support for consumers during the period between being disconnected from the natural gas supply and transferred to either hydrogen or the alternative. We are also considering whether any further safeguards and support mechanisms are required for vulnerable consumers and those experiencing fuel poverty, on top of existing protections.

We are working with the gas industry to ensure that consumers will continue to have choice in their energy supplier and that billing and payment is no more complicated than current arrangements.

Financial fair treatment – we intend that no consumer in the village trial area will be financially disadvantaged as a result of the grid conversion trial taking place, including with respect to the installation and maintenance of either hydrogen heating or an alternative solution. Consumers should not pay more to use hydrogen gas than they would for natural gas. We are exploring the mechanisms to best achieve this with the gas networks.

Quality of Service –. All products provided by the trials will be appropriately certified and installed to the appropriate standard. All work carried out will be conducted by appropriately qualified Gas Safe Registered engineers and to robust standards, such as those being developed by the Hydrogen Skills and Standards for Heat Programme.

The principles of the quality of service in the Gas (Standards of Performance) Regulations 2005 will be adhered to for the trial. The GDN running the trial will need to ensure that there will be minimal disruption to all properties in the area.

Some of the themes raised in the responses, such as changes to ownership, occupancy and landlord / tenant scenarios, relate to the practical aspects of delivering the village trial. We have also identified issues which we will look to address with the GDNs and other government departments through the detailed design work, concerning the impact of the trial on the housing market, housing tenure and planning. These are all important issues and further work may be required to understand and ensure appropriate consumer protections are in place for a range of scenarios as part of later stages of plan development. The development of an appropriate consumer engagement and protection plan will be an important factor in BEIS and Ofgem's assessment of the GDNs' proposals.

Next steps

We will progress the legislative changes in accordance with Parliamentary timelines.

We expect that one or more of the proposals submitted to BEIS and Ofgem by the GDNs in December 2021 will be selected to be developed into detailed proposals. Final decisions on where the trial will take place are expected in 2023. Government and regulators will continue to develop consumer protection measures and identify appropriate mechanisms to implement them as the GDNs develop their detailed proposals.

Annex A - List of consultation respondents

Written responses were received from the following:

- Baxi Heating UK
- Bright Blue
- British Standards Institute
- BUUK Infrastructure
- Cadent
- Centrica
- Chartered Institute of Plumbing and Heating (CIPHE)
- Energy Networks Association
- MCS Charitable Foundation
- National Energy Action
- Newcastle University
- Northern Gas Networks (NGN)
- Responses (x2) received from individuals
- Royal Society of Chemistry
- SMP Pipe
- Vaillant Group UK Ltd.
- Wales & West Utilities

List of stakeholders with whom we met:

- Arup Engineering
- Association for Decentralised Energy
- Association of Manufacturers of Domestic Appliances
- Baxi Boilers
- Beyond 2050
- British Electrotechnical and Allied Manufacturers Association
- British Standards Institution
- Catapult Energy Systems
- Centrica
- Chartered Institute of Plumbing and Heating Engineering
- Citizens Advice
- Climate Change Committee
- Costain / Decarbonised Gas Alliance
- Energy UK
- Energy and Utility Skills
- Energy Networks Association
- Gas Safe Register
- Heating and Hot water Industry Council
- Independent Networks Association
- Industrial and Commercial Heating Equipment Association
- Institution of Civil Engineers

- National Energy Action

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