

## National Home Decarbonisation Group The Big Retrofit Challenge 2.0

### Innovators from across the sector are invited to apply for the National Home Decarbonisation Group's (NHDG) 'Big Retrofit Challenge 2.0'.

Building on the success of the inaugural Big Retrofit Challenge in 2024, the National Home Decarbonisation Group (NHDG) is proud to launch the second edition - Big Retrofit Challenge 2.0.

We invite innovators from across the retrofit and renovation sector to apply to this showcase of cutting-edge building decarbonisation solutions.

NHDG and Innovate UK, in association with Futurebuild, are presenting the opportunity to highlight innovations that will help transform the way homes and buildings are decarbonised.

Up to **six** organisations will be shortlisted as 'winners' and invited to present their innovations at **Futurebuild 2026 (3–5 March, ExCeL London)** as part of the National Retrofit Conference and Expo.

#### **The six shortlisted winners will have the opportunity to:**

- **Pitch:** Present your innovation on stage during a scheduled session at the National Retrofit Conference.
- **Showcase:** Exhibit your solution to NHDG members at the NHDG Pavilion at Futurebuild.
- **Engage:** Connect with NHDG members following Futurebuild, with the potential for solutions to be trialled or piloted in real work scenarios.
- **Amplify:** Benefit from post-event visibility through video interviews, press releases, and thought-leadership articles.

Innovations can be products, services, improved systems or other solutions (including those enabling behavioural changes in building use) that deliver health and decarbonisation benefits to consumers, householders, and occupiers.

Eligible solutions can apply to:

- Existing homes
- Existing non-residential properties
- New buildings, provided the solution is also applicable to retrofit

### **Application criteria**

- Your company must be a UK-registered business with a maximum annual turnover of up to £15 million. Priority will be given to less established organisations.
- Organisations must present a product, service, system improvement, or other solution aimed at home decarbonisation and health improvement.
- Compliance with PAS2035 or the Microgeneration Certification Scheme (MCS) is not required to be shortlisted, though applicants should consider how their solution could align with these standards in future.
- Organisations will be asked about the level of resident engagement undertaken when developing their innovation.

### **Deadline**

This opportunity closes at **11:00 (UK time) on Monday 10 November 2025**. Applications submitted after this deadline will not be accepted.

We welcome and encourage applications from people of all backgrounds and are committed to making the process accessible to everyone. This includes making reasonable adjustments for people with a disability or long-term condition who may face barriers applying via this form.

For guidance, please contact [support@nhdg.org](mailto:support@nhdg.org).

**To apply online visit <https://forms.office.com/e/hTtnkjRqeT>.**  
**Questions provided in this document are for information only**

## Application questions

These are provided as guidance to help you complete the online form.

All submissions to the Big Retrofit Challenge 2.0 must be completed online here:

**<https://forms.office.com/e/hTtnkjRqeT>**.

If you have any issues with completing the online form please contact

**[support@nhdg.org](mailto:support@nhdg.org)**.

\* Required

### Company information

Here you will be asked about the registered details of your company, your business activities, financial information and company size.

1. Company name: \*

2. Companies House registration number \*

3. Company address \*

4. Please provide the date your company was established in the UK \*

Note this is an estimate. Do not be too concerned about the specific day of the month selected.

5. Company website

Please enter a URL

## 6. Describe your company offer \*

Describe your business, showing the extent to which activities relate to retrofit or renovation with the aim of decarbonisation are part of your portfolio.

Please also:

- Briefly include activities not related to the specific innovation proposed in this application
- Also explain your current products, services, system or other solutions and any new or planned ones that you aim to introduce over the next 2-3 years

*The response should be approximately 300 words (limit is 1,600 characters)*

## 7. Company financial overview

Please indicate the range of your company annual turnover.

To be eligible your organisation must have a maximum annual turnover of up to £15m. Priority will be given to smaller, less established organisations.

- ☐ £0k - £100k
- ☐ £100k - £500k
- ☐ £500k - £1m
- ☐ £1m - £2m
- ☐ £2m - £5m
- ☐ £5m - £10m
- ☐ £10m - £15m

## 8. Current company headcount: \*

Please express this as a number in FTE (full time equivalent).

## About your innovative product or service

9. Provide a product, service, improved system or other solution name and summary description of the innovation proposed for the 'Big Retrofit Challenge' \*

You must include:

- What the innovation does
- Relevance to building decarbonisation, healthy buildings and/ or consumer, householder or occupier benefits

*The response should be approximately 300 words (limit is 1,600 characters)*

10. Which of the following categories best describes your product, service, system improvement, or other solution? (please tick one) \*

We will use this categorisation to take a *portfolio approach* to selection. This means supporting a variety of solutions across different themes, markets and technologies. The aim is to ensure broad coverage of strategic areas. As a result, a proposal that scores lower than yours may still be successful.

- ☐ **Building Fabric Solutions**  
E.g. insulation systems (walls, roofs, floors), prefabricated or modular façade/roof systems, moisture, mould and air quality control linked to fabric upgrades
- ☐ **Low-Carbon Heating & Cooling**  
E.g. next-generation boilers, heat pumps, room-level climate systems
- ☐ **Renewable Energy & Energy Storage**  
E.g. integrated solar/PV roofing systems, battery and thermal energy storage solutions, local energy generation for estates/communities
- ☐ **Data, Digital Tools, Controls & Performance Evaluation**  
E.g. smart controls, digital twins, AI optimisation, asset management, retrofit planning tools, monitoring, and technical performance evaluation (fabric, systems, energy use)
- ☐ **Occupant Engagement, Behaviour & Wellbeing**  
E.g. Community engagement, training and upskilling, user-centred design, behaviour change, occupant-focused performance feedback, indoor air quality and mould prevention, support for vulnerable groups
- ☐ **Cross-Cutting Enablers**  
E.g. finance and business model innovations, supply chain and delivery process solutions (offsite manufacturing, rapid install methods)

11. Please detail the costs and benefits of your product, service, system improvement or other solution \*

For product/ service costs, please include:

- Cost of technology
- Cost of installation
- Annual maintenance costs (including any additional costs to the owner/occupier)
- Operating cost (including any additional costs to the owner/occupier)
- Energy saving (and CO2e savings if available) of the innovation
- Payback for the innovation/ return on investment (if applicable)
- The estimated lifetime of the product

*The response should be approximately 300 words (limit is 1,600 characters)*

12. Do you have any documented evidence to support the claims made in question 11 above? \*

You may submit up to three pieces of evidence. These must be provided as accessible URL links – please ensure the links work and are not stored in a password-protected system. This response is for evidence 1

☐ Yes

☐ No

13. Please provide a URL link to evidence 1 \*

14. Do you have further evidence for question 11 that you would like to submit? \*

This response is for evidence 2

☐ Yes

☐ No

15. Please provide a URL link to evidence 2 \*

16. Do you have further evidence for question 11 that you would like to submit? \*

This response is for evidence 3

- ☐ Yes
- ☐ No

17. Please provide a URL link to evidence 3 \*

18. How near is the innovation to commercialisation? \*

Please give your response in relation to Technology Readiness Level (TRL):

- ☐ TRL 1: basic principles observed and reported
- ☐ TRL 2: technology concept or application formulated
- ☐ TRL 3: analytical and experimental critical function or characteristic proof-of-concept
- ☐ TRL 4: technology basic validation in a laboratory environment
- ☐ TRL 5: technology basic validation in a relevant environment
- ☐ TRL 6: technology model or prototype demonstration in a relevant environment
- ☐ TRL 7: technology prototype demonstration in an operational environment
- ☐ TRL 8: actual technology completed and qualified through test and demonstration
- ☐ TRL 9: actual technology qualified through successful commercial operations

19. Describe your traction to date as well as your ambition and the growth potential of your business over the next 3 years \*

By traction we mean with:

- Customers
- Partners
- Supply chains

*The response should be approximately 300 words (limit is 1,600 characters)*

20. Describe the main challenges you face in scaling your business \*

Describe your current barriers to growth and the three key challenges you face.

*The response should be approximately 300 words (limit is 1,600 characters)*

21. Is your proposed innovative product or service compliant with any of the following? \*

Note that this response is for information only. If you provide a system solution that does not require certification, please indicate using "not applicable" below.

This competition **does not** require certification of the proposed innovative product or service and is not limited to government-funded works. Innovations applicable to the private sector will be treated equally.

However, any equipment/ solution **must** comply with suitable regulations to enable them to be installed in homes while not affecting any government funding scheme rules

- ☐ PAS2035
- ☐ MCS
- ☐ PAS2035 *and* MCS
- ☐ The innovation is not PAS2035 or MCS certified, but can be delivered through government funded retrofit schemes (e.g. the Warm Homes: Social Housing Fund & Warm Homes: Local Grant)
- ☐ The innovation is not currently certified or recognised by government schemes, but certification / recognition is in progress
- ☐ No
- ☐ Not applicable
- ☐ Don't know

22. Please provide an estimated date certifications or recognition will be completed \*

Note this is an estimate. Do not be too concerned about the specific day of the month selected.

23. Have you undertaken any pilots for your innovation? \*

- ☐ Yes
- ☐ No



24. Can you provide a case study? \*

If yes you will be asked to provide a link to your case study. These must be provided as accessible URL links – please ensure the links work and are not stored in a password-protected system

- ☐ Yes
- ☐ No
- ☐ Potentially in the future (we will ask you again if you are shortlisted)

25. Please add a link to your case study here \*

We use links to access case studies to reduce the emissions impact of storing documents in multiple cloud locations

## Social Value and Engagement

26. What does social value mean to your business and how does that effect your offer? \*

Social value is a vital and responsible component of retrofit delivery, benefitting both clients and the communities they serve. As it increasingly influences decisions around new products and services, it's essential to ask: What does your business understand about social value, and how are you planning to embed it into your offer?

*The response should be approximately 300 words (limit is 1,600 characters)*

27. What occupant engagement have you completed when developing your innovation, if any? \*

*The response should be approximately 300 words (limit is 1,600 characters)*

28. Are you Sedex or B-Corp registered, or do you have some form of social environmental governance in place? \*

*The response should be approximately 150 words (limit is 1,000 characters)*

### **Benefits to your company from participating in the 'Big Retrofit Challenge'**

29. What do you hope to get out of participation in the 'Big Retrofit Challenge' innovation competition? \*

*The response should be approximately 300 words (limit is 1,600 characters)*

30. If you were shortlisted, how would you propose to best display your innovation in the showcase? \*

*The response should be approximately 300 words (limit is 1,600 characters)*

### **Contact information**

Please enter the details for the main point of contact for this application.

31.Contact name \*

32.Contact job title \*

33.Contact phone number \*

A mobile number is preferred

34. Contact email address \*

### Declarations

35. I confirm that the contents of this application are accurate to the best of my knowledge and that I am authorised to apply for a place on the 'Big Retrofit Challenge' on behalf of the business \*

Please type your name in the box below to confirm authorisation.

36. Data you provide will be collected in line with Innovate UK's privacy notice\*. We will share relevant data with NHDG and Talan (who provide the secretariat services for the NHDG and are managing the 'Big Retrofit Challenge' on behalf of the group) for the purposes of providing support to you. Please agree or disagree below. \*

\* The Innovate UK privacy notice can be found at <https://www.ukri.org/publications/innovate-uk-privacy-notice-and-information-management-policy/innovate-uk-privacy-notice-and-information-management-policy/>

☐ I agree

☐ I disagree