

[Detailed guide: Innovations in the built environment](#)

Updated: Smart Meter Enabled Thermal Efficiency Ratings Innovation Competition launched

Innovation in the built environment

Across government, Innovate UK, Research Councils, and BEIS expect to invest around £184 million in research and innovation in the built environment.

As part of this commitment, within the BEIS Energy Innovation Programme, BEIS expects to invest around £90 million in low carbon heating and energy efficiency options for UK homes and businesses.

Modern Energy Partners – Public Sector Energy Efficiency

Reducing energy consumption in, and greenhouse gas emissions from, the public-sector estate helps reduce costs to taxpayers and enables the UK to meet carbon budgets.

A new pilot project, Modern Energy Partners, will explore novel ways to drive more ambitious efforts to drive down consumption and emissions across the public-sector estate.



[Modern energy partners: brief project description](#)

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A Prior Information Notice (PIN) has been published. Parties interested in tendering for work on this project should consult the [PIN](#).

Smart Meter Enabled Thermal Efficiency Ratings (SMETER) Innovation Programme

Government has launched a funding scheme to invest up to £5 million to develop, test and demonstrate technologies that measure the thermal performance of homes using smart meter and other data. These have been termed Smart Meter Enabled Thermal Efficiency Ratings (SMETER). Of this funding, up to £4.1 million is provided for innovation projects to develop SMETER tools, for which applicants may apply for funding up to £1 million. Government is also providing up to £900,000 for a Technical Assessment Contractor to independently test and demonstrate SMETER tools developed during the innovation projects.

Full details about the Innovation Competition and Technical Assessment Contractor and the funding available is set out in the guidance and application notes:



[Smart Meter Enabled Thermal Efficiency Ratings \(SMETER\) Innovation Competition: application guidance notes](#)

PDF, 745KB, 83 pages

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[Smart Meter Enabled Thermal Efficiency Ratings \(SMETER\): Technical Assessment Contractor – Invitation to Tender](#)

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For more information, please email BuiltEnvironmentInnovation@beis.gov.uk using the title 'SMETER Innovation Competition' or 'SMETER Technical Assessment Contractor' in the email subject.

Building for 2050

Announced as part of the [Construction Sector Deal](#), government is investing £1.4 million in a research project called '[Building for 2050](#)'. Led by AECOM, this project is gathering evidence from 3 housing developments located in Swansea, Bristol and Manchester with the aim of uncovering the barriers to developing low cost, low carbon housing. The project will test innovative methods of construction and will involve working closely with households throughout the project to track their views, and to report on progress as we seek to reduce the environmental impact of UK homes by 2050.

Investing in Low Carbon Heating Technology Innovation

Government has launched a grant scheme to invest up to £10 million to develop technologies that reduce the carbon emissions associated with providing heat and hot water to UK buildings. Innovative technologies, processes and tools are eligible for support and applicants may apply for a grant of £200,000 to £2 million.

Full details about the grant scheme are set out in the guidance notes.

This competition is now closed to applications. Details of the projects offered funding in this Competition are set out here:



[BEIS Low Carbon Heating Technology Innovation Fund: summary project details](#)

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For more information, please email BuiltEnvironmentInnovation@beis.gov.uk using the title Low Carbon Heating Technology Innovation Fund in the email subject.



[Low carbon heating guidance and application notes](#)

PDF, 588KB, 40 pages

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[Low carbon heating and technology innovation fund Q&A](#)

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Investing in Building Thermal Efficiency Innovation

Government has launched a grant scheme to invest up to £10 million to develop technologies and approaches to improving the energy efficiency of existing UK buildings. Innovative technologies, processes and business models are eligible for support and applicants may apply for a grant of £200,000 to £2 million.

Full details about the grant scheme are set out in the guidance notes.

This competition is now closed to applications. Details of the projects offered funding in this Competition are set out here:



[BEIS Thermal Efficiency Innovation Fund: summary project details](#)

PDF, 167KB, 4 pages

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For more information, please email BuiltEnvironmentInnovation@beis.gov.uk using the title Thermal Efficiency Innovation Fund in the email subject.



[Thermal efficiency innovation guidance notes](#)

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[Thermal efficiency innovation fund Q&A](#)

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Investing in hydrogen innovation for heating

BEIS is undertaking a £25 million project to explore the potential use of hydrogen gas for heating UK homes and businesses. Following a competition, BEIS has appointed Arup+, a team of contractors led by Ove Arup to run this project.

This project will run from 2017 to 2021 and will aim to define a hydrogen quality standard, and to explore, develop and test domestic and commercial hydrogen appliances.

Investing in smart heating systems

BEIS is investing £9.8 million in phase 2 of the [Smart Systems and Heat Programme](#), run by the [Energy Systems Catapult](#). This phase will build on the work from phase 1, including developing a 'Home Energy Services Gateway' to change the relationship between consumers, heating systems, and energy suppliers. The project will also include work with local authorities on developing low energy plans, including the support the development and expansion of domestic low carbon heating projects.