



Topical Digest

Housing: net zero, decarbonisation and retrofitting

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Research and
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Service



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This topical digest provides a reading list of recent strategies, research reports, news articles and blog articles relating to residential decarbonisation and net zero.

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1 Introduction

The [Climate Change Act \(Northern Ireland\) 2022](#) sets ambitious targets for the reduction in net zero greenhouse gas emissions by 2050. The new [Housing Supply Strategy for Northern Ireland 2024-2039](#) recognises the key role that both the construction of new housing and the retrofitting of existing homes will play in helping reduce emissions. The Department for Communities' latest [Climate Change Action Plan 2024-25](#) sets out some of the areas the Department is working on towards meeting climate change commitments including the development of a Fuel Poverty Strategy, a Departmental Climate Change and Sustainability Strategy and a Residential Buildings Decarbonisation Strategy.

The Climate Change Committee report on [Northern Ireland's Fourth Carbon Budget](#) has advised that significant investment will be required in the residential buildings sector, primarily due to the upfront costs of low-carbon heating systems and energy efficiency improvements. Many recent reports, for example, by [Forum for Better Homes NI](#) and the [Chartered Institute of Housing NI](#), explore both the challenges and opportunities in decarbonising the housing sector in Northern Ireland.

This topical digest provides a reading list of recent strategies, research reports, news articles and blog articles relating to residential decarbonisation and net zero. It is by no means intended to be fully comprehensive as the path towards housing decarbonisation in Northern Ireland involves a wide range of sectors, organisations and individuals, including owner-occupiers, landlords and tenants.

2 Department for Communities

- Department for Communities, [Climate Change Action Plan 2024-25](#) (December 2024)
 - [DfC Climate Change Action Plan 2021-22](#)
 - [DfC Climate Change Action Plan 2022-23](#)
- Department for Communities, [The Housing Supply Strategy 2024-2039](#) (December 2024)
- Department for Communities landing page for the current [Decent Homes Standard](#) and [minimum fitness standards](#)
- Department for Communities, [Ministerial Advisory Group \(MAG\) Architecture and the Built Environment for Northern Ireland](#)

3 Department of Agriculture, Environment and Rural Affairs

- DAERA, [Northern Ireland's draft Climate Change Action Plan 2023-2027](#)
- See also [Climate Change Act \(Northern Ireland\) 2022](#), [The Climate Change Act \(Northern Ireland\) 2022 – Key Elements](#), [consultation](#) on the establishment of a Just Transition Commission

4 Department for the Economy

- Department for the Economy, [Green Skills Action Plan](#) (May 2025)
- Department for the Economy, [Energy Strategy Action Plan 2025 and Action Plan Report 2024](#) (March 2025)
- Department for the Economy, [Consultation on support for low carbon heating in residential buildings](#) (October 2024)
- Department for the Economy, [Energy One Stop Shop Implementation Plan: consultation on policy options](#) (October 2022)
- Department for the Economy, [Research into the future of energy efficiency policy in Northern Ireland](#) (commissioned from Arup) (January 2021)
- Department for the Economy, [Energy Efficiency](#) landing page

5 Northern Ireland Housing Executive

- Northern Ireland Housing Executive, [Home Energy Conservation Authority, Annual Progress Report 2023/24](#)
- Northern Ireland Housing Executive, [Delivering Sustainable Homes and Communities, Corporate Sustainable Development Strategy and Action Plan \(2022-2027\)](#)
- Northern Ireland Housing Executive [Housing Investment Plans](#) landing page
- Housing Executive [Low Carbon Programme](#) landing page
- Housing Executive [House Conditions Survey](#) landing page

- Housing Executive [energy efficiency and sustainability research](#) landing page
 - [Evaluation of the Affordable Warmth and Boiler Replacement Energy Efficiency Schemes 2020/21 and 2021/22](#)
 - [Journey to Retrofit: review of a pilot scheme to improve the energy efficiency of social housing](#)
- Selection of Housing Executive New Releases:
 - [Housing Executive invests £14m in 300-home retrofit scheme](#) (8 October 2024)
 - [Housing Executive progresses 300 Low Carbon Programme toward Net Zero](#) (27 September 2024)

6 Northern Ireland Audit Office

- Northern Ireland Audit Office, [Northern Ireland Energy Strategy](#) (21 October 2025)
- Northern Ireland Audit Office, [Approaches to achieving net zero across the UK: Report by the four Auditors General of the UK](#) (September 2023)

7 Climate Change Committee reports and articles

- [Northern Ireland's Fourth Carbon Budget: Advice for the Northern Ireland Executive](#) (March 2025)
- [Electric technologies will benefit Northern Ireland](#) (19 March 2025)
- [Advice report: The path to a Net Zero Northern Ireland](#) (March 2023)
- [Reform of domestic EPC rating metrics](#) (February 2023)
- [UK Housing: Fit for the future?](#) (February 2019)

8 Northern Ireland specific reports on residential energy efficiency, decarbonisation and retrofitting

- Chartered Institute of Housing Northern Ireland, [An Agenda for Change: Tackling the Housing and Homelessness Crisis](#) (see Section 2: warm and zero carbon homes) (August 2024)
- Policy Eye Northern Ireland, [The Path to Net Zero Energy: Doing more with Less. Roundtable Discussion Report](#) (8 March 2024)
- B. James et al, [How far can low emission retrofit of terraced housing in Northern Ireland go?](#), Ulster University (March 2024)
- Ark Policy Brief, [Achieving a Just Transition in Northern Ireland](#) (December 2024)
- Forum for Better Homes NI, [New Foundations: The route to low carbon homes](#) (May 2023)
- B. Curran. [Policy insight: financing people-centred climate action: a Just Transition Bond for the Northern Ireland Housing Executive](#) (June 2022)
- S.Ogunrin et al, [Domestic energy efficiency scenarios for Northern Ireland, Ulster University](#) (April 2022)
- Consumer Council NI, [Consumer attitudes to energy transition](#)

9 Selection of other reports on residential energy efficiency, decarbonisation and retrofitting

- N.Harrington, [Factors influencing heat pump adoption in Sweden, Germany, Switzerland and the United Kingdom: international comparison case study](#) (June 2025)
- UK Finance, [Greening Homes, Creating Growth: unlocking demand for green home finance](#) (June 2025)
- M. Marshall. et al, [Transforming social housing through decarbonisation: the challenges and opportunities of decarbonising at scale](#) (May 2025)
- Local Government Association, [Empowering local climate action: advice to government](#) (April 2025)
- Resolution Foundation Briefing, [Turning up the heat: making the home heating transition work for low-income households](#) (April 2025)
- N Marisa Yesudas and M Scott, [Turning up the heat: discussion questions on overheating in domestic homes in the UK](#) (March 2025)

- National Retrofit Hub, [Raising standards in the private rented sector: a pathway to equitable and effective retrofit](#) (February 2025)
- N. Harrington, [Heat pumps and domestic heat decarbonisation in the UK: a systems thinking analysis of barriers to adoption](#) (November 2023)
- Climate Citizens and Lancaster University, [Addressing emissions from owner-occupied homes: findings of a citizens' panel on home energy decarbonisation](#) (September 2022)
- Etude, [Making SAP fit for Net Zero: A report for the Department for Business, Energy and Industrial Strategy](#) June 2021
- Green Finance Institute, [Financing energy efficient buildings: the path to retrofit at scale](#) (May 2020)

10 Northern Ireland news articles, press releases and blogs

- [Decarbonisation in Northern Ireland: the potential of a one stop shop](#), Energy Savings Trust (30 September 2025)
- [Apex secures new funding facility from Danske Bank](#) (£35m revolving credit facility to support the development of energy efficient homes across Northern Ireland), Apex News Release (10 September 2025)
- [Why NI is a 'Goldilocks' area for renewable home heating](#), BBC News NI (28 July 2025)
- [Net Zero: key growth areas for Northern Ireland's green economy](#), Invest NI (9 July 2025)
- [The social housing challenge: balancing new builds and retrofitting](#), AgendaNI (April 2025)
- [Choice completes energy efficiency retrofits in Belfast](#), Choice news release (15 April 2025)
- [Push for regulation and incentives to drive building carbonisation](#), NI Builder Magazine (19 March 2025)
- [Let's prioritise the retrofitting of homes to ensure they are more energy efficient](#), Belfast Telegraph (7 January 2025)
- [Support possible for heating decarbonisation in homes](#), BBC News NI (8 October 2024)
- [Solar panels and heat pump 'have made such a difference](#), BBC News NI (27 September 2024)
- [Retrofit advice in Northern Ireland](#), AgendaNI (May 2024)
- [Transforming our built environment for a climate-resilient future](#), AgendaNI (April 2024)

- [A 'just transition' to net zero in Northern Ireland: the role the housing sector can play in mitigating against climate change](#), Housing Rights (12 February 2024)
- [Delivering a decarbonised gas network](#), AgendaNI (November 2023)
- ['Concerted action' needed for housing decarbonization](#), AgendaNI (May 2023)
- [Climate change: most NI homes 'need upgrade' to meet net zero goal](#), BBC News NI (26 May 2023)
- [CIH Northern Ireland calls for action on retrofitting social homes amid energy crisis](#), Inside Housing (7 March 2022)
- [Housing Executive wins Net Zero Carbon award](#), Housing Executive News Release (11 February 2022)
- [Decarbonising residential heating in Northern Ireland](#), QPOL Blog (3 November 2021)
- [Heat and building strategy needed in Northern Ireland to reach net zero, housing bodies say](#), Inside Housing (1 November 2021)
- [Decarbonising Northern Ireland's housing stock](#), RICS (January 2020)
- [Heat pumps: how they work, costs and savings](#), Energy Savings Trust

11 Northern Ireland Assembly Questions

- Questions relating to decarbonisation available [here](#)
- Questions relating to energy efficiency available [here](#) (2025-26 session) and [here](#) (2024-25 session).
- Search information published by the Northern Ireland Assembly via the [AIMS Portal](#)

12 UK Government publications

- Department for Energy Security and Net Zero, [Domestic private rented property: minimum energy efficiency standard – landlord guidance](#) (updated August 2025)
- Department for Energy Security and Net Zero, [Improving the energy performance of private rented homes: consultation](#) (February 2025)
- Department for Levelling Up, Housing and Communities, [The Future Homes and Buildings Standard: 2023 consultation](#) (December 2023)

- Department for Energy Security and Net Zero, [Home Energy Model: Future Homes Standard assessment](#) (December 2023)
- Department for Energy Security & Net Zero, [Research and Analysis: Building for 2050 – Low cost, low carbon homes](#) (December 2022)
- UK Government, [Heat and Buildings Strategy](#), Policy Paper (October 2021)
- UK Government, [Net Zero Strategy: Building Back Greener](#), Policy Paper (October 2021)

13 House of Commons and House of Lords

- House of Commons Library, [The UK's plans and progress to reach net zero by 2050](#) (August 2025)
- House of Commons Library, [Energy efficiency of UK homes](#) (February 2025)
- House of Commons Library, [Research Briefing: Housing and Net Zero](#) (July 2024)
- House of Commons, Committee of Public Accounts, [Decarbonising home heating](#) (May 2024)
- POST, [Heat pumps](#) (advances in technology, suitability for UK properties, barriers to deployment) (July 2023)
- House of Commons, Environmental Audit Committee, [Inquiry Report: Energy Efficiency of Existing Homes](#) (March 2021)

14 Selection of publications relating to Scotland

- N. Harrington, [How to optimise health pump deployment in Scotland: local authority perspectives](#) (April 2025)
- ClimateXChange, [Housing market impacts from heating and energy efficiency regulations in Scotland](#) (July 2024)
- Scottish Parliament and Scotland's Futures Forum, [Scotland's Housing and Net Zero Conference](#) overview (22 April 2024)
- SPICe Spotlight, [Decarbonising heating in Scotland: current Scottish and UK policy](#) (February 2024)
- Scottish Government, [Delivering net zero for Scotland's buildings – Health in Buildings Bill: consultation](#) (November 2023)

- Scottish Government, [Heat in Buildings Strategy – achieving net zero emissions in Scotland’s buildings](#) (October 2021) and [Heat in Buildings Bill consultation](#) (November 2023)
- Scottish Government, [Energy Performance Certificate \(EPC\) reform: consultation](#) (July 2023)
- Scottish Government, [Energy Standards Review – Scottish Passivhaus equivalent: Working Group](#)

15 Selection of publications relating to Wales

- Welsh Government, [Optimised Retrofit Programme](#) (a whole house approach to decarbonising existing homes)
- Welsh Government, [The Welsh Housing Quality Standard 2023](#) (October 2023)
- Welsh Parliament, Climate Change, Environment and Infrastructure Committee, [Decarbonising the private housing sector](#) (February 2023)
- Chartered Institute of Housing Cymru, [Decarbonising Wales’ Private Rented Sector: Tackling the energy crisis to meet net-zero](#) (July 2022)
- [Carbon HWB](#): a knowledge hub of resources from organisations working towards net zero in housing

16 Selection of publications relating to the Republic of Ireland

- [Social housing retrofitting target unlikely to be met, says oversight group for councils](#), The Irish Times, 30 September 2025
- [6 reasons why Ireland’s retrofit revolution has stalled](#), RTÉ, 3 April 2025
- Department of Climate, Energy and the Environment, [Climate Action Plan 2025](#) (April 2025)
- [Radical overhaul of retrofit grants under consideration](#), The Irish Times (10 March 2025)
- [Half-way to 2023: What the new government means for retrofitting](#), Energy Ireland (24 February 2025)
- [Government launches National Retrofitting Scheme](#), Department of Climate, Energy and the Environment, Press Release (8 February 2022)

- Sustainable Energy Authority of Ireland, [National Home Energy Upgrade Scheme](#) landing page
- [JustHousing: Climate Justice and housing in Ireland](#) – JustHousing is a three-year Environmental Protection Agency-funded research project examining how current retrofitting policies exacerbate or alleviate social inequalities

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