

Introduction

The Chartered Institute of Building is the world's largest and most influential professional body for construction management and leadership across the built environment. We have a Royal Charter to promote the science and practice of building and construction for the benefit of society, and we've been doing that since 1834.

Our members work worldwide, and across the island of Ireland in the development, conservation and improvement of the built environment. We accredit university degrees, educational courses and training in universities and colleges in Ireland.

Our professional and vocational qualifications are a mark of the highest levels of competence and professionalism, providing assurance to clients and other professionals procuring built assets. The CIOB also has a dedicated policy and research function, whose expertise we have drawn on in the preparation of this response.

Our response focusses on the chapters of the Draft Climate Action Plan deemed most relevant to the Institute's expertise.

Chapter 6: Sector Policies and Proposals: Residential Buildings Sector

9. To what extent do you agree with the proposed policies and proposals to reduce emissions for the residential buildings sector?

Neither agree nor disagree

Please provide your reasons and any alternatives:

Policy evaluation

Given that there is variance in the extent to which the programmes/proposals have been evaluated and found to be effective (see table 1 below), we do not think they are sufficient to address the significant emissions from the residential buildings sector.

Table 1: CIOB Policy Evaluation of Policies and Proposals for Residential Buildings Sector

Policy / Programme	What analysis exists	Key quantitative findings / metrics	Gaps or limitations
Affordable Warmth Scheme (NI)	Yes — several evaluations and modelling, as well as customer surveys. (NIOPA)	• 2014–2018 AWS evaluation: average lifetime energy savings per household ~72,000 kWh; fuel cost savings £3,650; CO₂ savings ~20,500 kg over lifetime; ~9-point SAP rating	The analyses are mostly retrospective, focused on homes that got interventions; less clear is marginal cost per unit of benefit for reaching further households. Also,

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		improvement. (NIOPA) • 2021/22 report: before AWS interventions, average SAP ~56.4; after interventions ~65.4. (NIOPA) • Customer satisfaction high: ~94-97% satisfied; health, ability to pay heating bills, and housing standard improvements reported. (NIOPA)	disentangling impacts of particular measures (e.g. insulation vs heating system) is harder. Also, some data pre-energy-price-crisis, so cost savings might shift.
Northern Ireland Sustainable Energy Programme (NISEP)	Partially — there’s a “review” by NEA, and some metrics from energy efficiency provision. (National Energy Action (NEA))	NEA’s review notes: fuel poverty rate ~22% in NI; ~43,800 households in “extreme fuel poverty” (spend over 15% of income on energy) using 2016 House Condition Survey data. (National Energy Action (NEA))	Less detailed published quantification of how much NISEP alone has reduced energy use / emissions; outcomes seem aggregated. Also many “schemes” inside NISEP vary in scale and type, so impact heterogeneity, and more recent data (post 2020) is thinner in public domain.
NI Housing Executive — Social Housing Energy Efficiency / Retrofit programmes	Yes — certain retrofit and fabric-improvement programmes have documented results. (cih.org)	From the “Energy Efficiency in Social Housing Programme”: ~1,406 of very thermally inefficient dwellings improved; average SAP after intervention up to ~73 (Band C); ~7,233 kWh/year primary energy savings per dwelling; CO ₂ emissions reduction ~1.5 tonnes per property per year; energy cost savings ~£772/year per tenant, on average. (cih.org) Housing Executive’s “Low Carbon Retrofit Programme”: £14	These are for specific subsets (social housing, certain construction types). Doesn’t necessarily generalise to full NI housing stock. Also, cost per home is fairly large; scaling up may have cost, supply, logistics, and tenant disruption implications. The impact on fuel poor private housing may differ. Also, long-term performance monitoring

Policy / Programme	What analysis exists	Key quantitative findings / metrics	Gaps or limitations
Biomethane (NI)	Yes — some modelling / spatial mapping and life-cycle analysis. (engineersireland.ie)	million to upgrade 300 homes by spring 2025 with whole-house retrofit including low carbon heating etc. (Housing Today)	(after 5-10 years) less visible.
		Key findings: more biomethane resource potential than previously estimated; over 6,000 GWh available (NI) from livestock manure + under-utilised grass silage (mixed feedstocks) — enough to meet ~80% of NI gas distribution network demand in energy terms. Emission reduction potential of ~845,000 tonnes CO ₂ if fully utilised. (engineersireland.ie) Also some pilot / first-injection examples (e.g. Granville Eco Park) demonstrating feasibility in real supply to the grid (4,000 homes in certain areas) albeit small scale so far. (RTÉ)	What remains less clear: actual costs per unit energy, leakages (methane loss), sustainability of feedstock supply, timeline to scale, regulatory / permitting issues. Also, whether this potential will be realised depends on infrastructure, market mechanisms, and investment.
Clean Heat Market Mechanism (UK / GB / NI)	Some regulatory impact assessment accompanies the Regulation; also, monitoring requirements are built in. (Legislation.gov.uk)	The impact assessments include expected costs and benefits of regulatory intervention, and the regulations mandate monitoring, dashboards, reporting. However, I did <i>not</i> find detailed published results yet (since scheme is newer). (Legislation.gov.uk)	Because implementation is fairly recent, longer-term outcomes (e.g. emissions reductions, heat system decarbonisation, consumer cost impacts) are still emerging. Also, for NI specifically, rollout may lag GB, or have different baselines.

Based on the available evidence, the current suite of energy efficiency and low-carbon heat programmes in Northern Ireland — while beneficial — appear insufficient on their own to achieve the scale of carbon reductions required from the residential building sector to align with long-term climate goals. Evaluations of the *Affordable Warmth Scheme* and *Northern Ireland Sustainable Energy Programme* show clear benefits at the household level: typical energy savings of 7,000–10,000 kWh per year and significant improvements in SAP ratings and occupant comfort. However, these schemes together reach only a few thousand homes annually, in a housing stock of roughly 800,000 dwellings, over half of which remain below EPC Band C. The *NI Housing Executive's retrofit investments* demonstrate the potential of deep retrofit to deliver substantial emissions reductions — around 1.5 tonnes of CO₂ per dwelling per year — but at current delivery rates and budgets, coverage remains small compared to the scale of the challenge.

While new and proposed initiatives such as the *Clean Heat Market Mechanism*, *Low Carbon Heat Support Programme*, and *biomethane development* signal a policy shift toward decarbonising heat, they are either in early stages or still being designed, with limited deployment and uncertain consumer uptake in a largely off-gas, oil-heated housing market. Moreover, many of the existing programmes are designed primarily to tackle fuel poverty and improve affordability rather than to achieve deep carbon abatement. Taken together, the data indicate that current and planned measures will reduce emissions and improve comfort for thousands of households, but without major scaling-up, tighter building regulations, and broader incentives for low-carbon heating, residential emissions in Northern Ireland are unlikely to fall at the rate or magnitude required to meet the 2030 and 2050 climate targets.

CIOB proposals: Operational Carbon

Residential operational emissions account for 13.7% of national emissions, primarily due to the use of fossil fuels for domestic heating. The combination of the condition of the housing stock and the sources of energy used for residential fuel means that Northern Ireland has an acute problem when it comes to residential operational emissions. According to the 2016 House Condition Survey, 99% of dwellings in Northern Ireland had central heating, where 68% of them are oil-fired, 24% with central gas heating, and 8% including solid fuel, electric, and fuel systems. 72% of the population use open or closed fires as secondary heating solutions, with coal and peat still ubiquitous. Relative to other areas of the UK, the situation in Northern Ireland is severe; by comparison, only 4% of households in England and Wales rely on oil.

Residential emissions in Northern Ireland are a confluence of several policy problems: an ageing housing stock; high levels of fuel poverty; poor health outcomes; lack of natural resources; and high dependence on imported fossil fuels. This convergence of socio-economic problems in the residential sector means that policies that target residential emissions will have wider benefits beyond achieving climate targets.

Northern Ireland does not currently have a national retrofit strategy. There are plans to launch a pilot domestic retrofit scheme, the findings of which will inform potential new business models for ramping-up delivery. This will be aligned with other existing energy efficiency schemes and pilot projects. Currently, all energy efficiency schemes in Northern Ireland implement retrofit measures for about 16,500 buildings per year. The UK's Climate Change Committee's Sixth

Carbon Budget (6CB) advice suggests an 11% reduction in total domestic demand and 4% removal of emissions (based on 2016 levels) in Northern Ireland by 2050. This could be achieved if fabric retrofit measures were implemented in 410,000 existing Northern Ireland dwellings by 2050.

The tax system – and stamp duty in particular – is frequently used as a lever to achieve wider policy goals. Could it also be used to reduce residential emissions? CIOB's proposal is to defer stamp duty liability on properties that have been purchased – by individuals, groups, or businesses – with the sole purpose of improvement. Once the enhanced property has been resold, the stamp duty liability is paid. The crux of the proposal is to encourage investors to fix up older, less energy efficient stock for resale, thereby creating a 'green flipping' business model, providing an additional incentive to retrofit, and increasing the overall number of residential retrofits.

The following provisos apply:

- Works must make significant improvements to the energy performance of the property (measured through BER or EPC)
- Works must be carried out by suitably qualified professionals/VAT registered companies – ensuring quality design and works, and to avoid free-ridership (see 'free-rider' section below)
- Occupation is not permitted during the period of work
- Occupation by the renovator is not permitted after the works are complete, nor can the buyer become the landlord of the property
- The stamp duty incurred should not increase from the first purchase

The proposal is not a standalone measure which will achieve a sufficient reduction in residential emissions. However, as part of a package of measures, including those proposed in the Draft Climate Action Plan, it could provide a stimulus to counter the stubbornly low number of residential retrofits in Northern Ireland

CIOB Proposals: Embodied Carbon

We are extremely disappointed to see only one mention of embodied carbon in the Draft climate action plan. Dealing with embodied carbon should be a pillar of any climate strategy for all sectors of the economy. The CIOB has done extensive work in this area, and we have made proposals around VAT reform that could facilitate a reduction in embodied carbon from the residential buildings sector.

Buildings account for 49% of the UK's carbon emissions. Heating, cooling, and lighting buildings – operational carbon – account for the majority of this, however almost half of these emissions are attributable to embodied carbon. Embodied carbon emissions result from mining, quarrying, transporting, and manufacturing building materials, in addition to construction activities, the repair, renovation and final disposal of buildings. Embodied carbon emissions in the built environment sector are rising and require a firm policy response if Northern Ireland is to achieve its climate ambitions. Existing policy and legislation are acting antagonistically to achieving Northern Ireland's Net-Zero by 2050 goal. Specifically, there needs to be a

reassessment of VAT so that it is equipped to deliver both improved energy efficiency in buildings and reduce the embodied carbon footprint of the built environment.

Under the UK's current tax structure, a reduced rate of 0% VAT is applied to demolition projects, while 20% VAT is applied on most repair and maintenance projects. This creates a perverse environment where the embodied-carbon-hungry activities of demolition and replacement are given taxation priority over the sustainable repair and restoration, of Northern Ireland's built environment. This contradicts the principles outlined in the Climate Change Act (NI) 2022, the, and the 2022 Circular Economy Strategy for Northern Ireland. Given that that UK-wide tax reform appears unlikely, to remedy this the CIOB is proposing that the Northern Ireland Government use its devolved powers to implement a demolition levy – one that bypasses the current devolution settlement around tax – to level the unequal playing field that threatens the sustainability of our built environment.

CIOB Proposals: Circular Economy

We support the transition from our current reliance on the linear economy to better embracing the circular economy's principles. In particular, we strongly support a shift in culture and approach that encourages reuse and repair. While this is a worthy vision, it would benefit from more detail. For example, given the importance of procurement, 'responsible procurement' could be included here in the programme for government.

The CIOB sees potential to reduce future demand for new construction through design that supports adaptability, repair, and maintenance, in line with the indicators of the EU Framework for sustainable Buildings, Levels. The most significant environmental impacts of constructing a building relate to its structure and facade. If the useful life of the building, and therefore also its structure, can be extended, there can be significant environmental benefits. CIOB supports the idea of using procurement processes to score a procured building's adaptability to change of use, and propose that this be germane to the decision to reward public construction contracts. While an adaptability requirement this may be overly onerous on smaller developments in peripheral locations, implementing an adaptability score is particularly important in central urban locations, where changes in demands for building types are frequent. We have already seen progress made in terms of social value being scored in procurement processes. This strategy is an opportunity to score circular economy principles such as adaptability of buildings in procurement decisions too.

Given the scale of building and demolition taking place in Northern Ireland's cities, creating a publicly accessible inventory of the materials available from a building prior to its demolition could be a useful way of connecting planned building projects to demolition projects such that optimal use is made of materials that will otherwise end up in landfill. CIOB advocates for pre-demolition assessments' in our work on sustainability. Pre-demolition assessments can establish an unbiased, qualified appraisal of a building's viability, presenting the environmental and economic case for its repair or replacement. A pre-demo assessment would be an ideal opportunity to provide a publicly accessible inventory of the materials and resources available in the planned demolition project. Further, these inventories could link in with community development projects locally to support community building projects. This link could be given

regulatory footing using the Central Procurement Directorate's implementation of social clauses in their work with the construction sector.

10. To what extent do you agree with the proposed approach to achieving a just transition in the residential buildings sector?

Neither agree nor disagree

Please provide your reasons and any alternatives:

While we support the principle of a just transition in the residential buildings sector, the Draft frequently points to future initiatives – ‘DfC is in the process of developing a Fuel Poverty Strategy’; ‘It is anticipated that the proposed Warm Healthy Homes Scheme will also support the just transition principle...’ – rather than current initiatives that can be evaluated. It is therefore difficult to agree or disagree as the proposed approach is a work in progress.

Conclusion

The Chartered Institute of Building welcomes the ambition of the Draft Climate Action Plan 2023–2027 and the recognition it gives to the built environment as a critical enabler of Northern Ireland’s transition to net zero. However, to achieve meaningful emissions reductions from the residential buildings sector, stronger and more coherent action is required across operational and embodied carbon, retrofit delivery, and the circular economy. The CIOB urges the Northern Ireland Executive to adopt a comprehensive national retrofit strategy, integrate embodied carbon reduction as a central pillar of climate policy, and align fiscal measures to reward repair, reuse, and energy-efficient improvement over demolition and rebuild. By embedding these principles into future iterations of the Climate Action Plan, Northern Ireland can not only accelerate progress toward its 2030 and 2050 climate targets but also deliver co-benefits in health, fuel poverty alleviation, and sustainable economic growth for communities across the region.

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October 2025