The Chartered Institute of Building (CIOB)

submission to

Department for Business, Energy & Industrial Strategy

on the call for evidence on

The Net Zero Review

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David Parry
Parliamentary & Public Affairs Officer
e: dparry@ciob.org.uk
t: +44(0)1344 630 875

Review of Net Zero: call for evidence

Introduction

The Chartered Institute of Building (CIOB) is the world's largest and most influential professional body for construction management and leadership.

We have a Royal Charter to promote the science and practice of building and construction for the benefit of society, and we have been doing that since 1834. Our members work worldwide in the development, conservation and improvement of the built environment. We accredit university degrees, educational courses and training.

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.

Background

Approximately 45% of the UK's total carbon emissions are a result of energy consumption in buildings. Eurostat data indicates the UK has one of the oldest housing stocks in Europe, with the smallest proportion of homes built after 1970 and the second highest proportion built before 1919.[1]

At least 70% of the buildings currently standing will be here in 2050, and with a housing stock of around 29 million homes, the energy performance of the UK's existing housing must be improved if we are to achieve our long-term emissions reductions target.[2] However, at present there is a real risk that the UK will not meet its legally binding carbon neutrality targets and become a net zero nation. As recently as June 2022, the Committee on Climate Change (CCC), an independent body established under the Climate Change Act 2008, noted that the latest annual progress report from the UK Government showed little evidence of delivery against its established goal.[3]

CIOB has been promoting the need for a sustainable built environment for many years. We have consistently argued that to meet our carbon targets, a raft of measures needs to be introduced throughout the design, planning and construction stage of a building to make them more carbon friendly and push construction towards the UK's net zero ambitions.

This is not to say that no progress has been made towards this goal as the industry has been innovating and using new methods to reduce the levels of CO2 that are produced during the construction phase, including the use of sustainable materials, implementing effective waste management systems and switching to more efficient vehicles to transport materials. Being carbon and resource efficient is increasingly seen as a way of not merely complying with legislation, but also with winning new business, improving efficiency, cutting costs and breeding innovation. However, without increased support from government, there is still a lack of an incentive to truly drive forward the step-change that is needed for the built environment, as a whole, to become net zero

As a professional body covering the construction industry, CIOB is well placed to provide evidence on the success or failure of current initiatives, government support and programmes in place to achieve net zero.

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[1] Building Research Establishment, The Housing Stock of the United Kingdom
[2] ClimateXChange, Retrofitting British homes to make them more energy efficient, September 2017
[3] Climate Change Committee, Current programmes will not deliver Net Zero, 29 June 2022

Full response

1. What challenges and obstacles have you identified to decarbonisation?

Addressing the decarbonisation of the built environment will require coordinated, long-term action. Isolated activities and private market initiatives alone will not be enough to address the scale of the challenge, and a variety of mechanisms will be needed to bring about the culture shift to drive towards a greener built environment.

The UK Green Building Council (UKGBC) finds that the built environment constitutes around 40% of the UK's total carbon footprint. With a current housing stock of around 29 million homes, the energy performance of the UK's existing housing stock must be improved if we are to achieve our long-term emissions reductions target. Private housing repair, maintenance and improvement (RMI) is a major sector for construction, accounting for more than £21 billion of industry activity in 2019. The private housing stock also has the highest concentration of buildings deemed below the Decent Homes Standard and are more likely to be rated below the EPC target Band C, thus representing one of the most significant challenges to reaching net zero.

Britain needs to spend heavily to repair, maintain and enhance that stock if it is to remain fit for purpose and relevant to meet ever changing social, economic, and environmental demands.

While there is a widespread need to keep the existing built environment fit for purpose, the challenge is perhaps most visible in the UK's aged housing stock, its decaying high streets, and its heavily potholed roads. Improvements here and elsewhere driven by focused construction activity would help to boost the economy, reduce environmental impact, and lift the public spirit.

The need is great and well documented. In housing for instance, the English Housing Survey for 2018-19 reported that 4.3 million homes failed to meet the Decent Homes Standard. Older homes featured high in this group, with 34% of homes built before 1919 classed as non-decent.[4] These were estimated in the 2017 English Housing Survey to need an average investment of £10,000 to bring them up to the standard. This compared with just 2% of homes built after 1990 classed as non-decent. These were estimated to need just £1,209 on average to bring them up to the standard.[5]

The 2018 English Housing Survey Stock profile and condition report suggested the average cost to bring all non-decent homes up to the standard was put at £7,365.[6] This suggests investment of about £32 billion is needed in England alone to bring them up to a standard set in 2006, before the recent clamours for greater effort to decarbonise the economy. Meanwhile, the Department for Business, Energy and Industrial Strategy (BEIS) estimates the total capital cost required to meet domestic EPC Band C targets set is between £35 billion and £65 billion.[7]

The challenges, however, are not simply financial. There are technical, social, and environmental issues at play. The simple answer might seem to be to demolish old buildings and replace them with new ones. We must, however, recognise that 38% of the English housing stock is considered hard-to-treat (defined as having no mains gas heating system and/or a solid wall property). With

[4] Ministry of Housing Communities & Local Government (MHCLG), English Housing Survey 2018: stock condition, Chapter 2: figures and annex tables, AT 2.1, 9 July 2020
[5] MHCLG, English Housing Survey: Stock profile and condition, 2017 Annex Table 2.7, 17 July 2019
[6] MHCLG, 2018 English Housing Survey Stock profile and condition report, Annex Table 2.3: Average cost to make decent, by tenure, 2018, 9 July 2020
[7] Business, Energy and Industrial Strategy Committee, Energy efficiency: building towards net zero, 9 July 2019

around 70% of these properties featuring in the most rural areas of England. Alongside this, there is an inherent environmental cost to demolishing a building.[8]

Environmental consultancy Greengauge, has echoed work undertaken by CIOB to argue that the carbon cost of demolishing a building can often outweigh any potential benefits. Greengauge has repeatedly argued that there are alternative options, which release a fraction of the carbon of a new build when combined with the carbon output of demolishing an existing building.[9]

This approach may bring labour efficiencies and simplify management. But there is growing evidence that suggests extending the lifecycle of buildings by refurbishment is in many cases preferable to demolition in terms of improved environmental, social, and economic impacts.

Coupled with the challenge of decarbonising the built environment is the skills demands. The Green Jobs Taskforce in its report to Government, Industry and the Skills Sector in July 2021,[10] recommended that the Government published a detailed net zero strategy and uses policy to promote green jobs, skills and competitive supply chains. In addition, that industry, the education sector and Government work together to put in place green careers advice and pathways into jobs. Given the construction industry already faces significant shortages in attracting and retaining talent to join the sector – in what could be seen as non-green jobs – then surely wider dialogue and clarity must be sought as to what exactly 'green jobs' consist of? of and how a compelling case to attract new entrants can be made.

From an industry perspective, perpetual volatility in demand for construction has led firms, particularly SMEs, to curb capital and education investment because spending on formal research and development (R&D) brings high fixed costs that are difficult to cut in an economic downturn. Accordingly, the lack of available finance is a major obstacle for SMEs investing in tools and skills. Creating a Green Skills Fund to channel low-cost, long-term loans to SMEs specifically for investment in formal, sustainability focused R&D would address this and lead to sector-wide improvements in sustainable practices. A similar fund exists in Holland, where the MKB+ (Innovation Fund for SMEs) gives construction firms access to finance to embed innovative new products, services, and processes in their business.[11]

2. What opportunities are there for new/amended measures to stimulate or facilitate the transition to net zero in a way that is pro-growth and/or pro-business?

There are significant opportunities within the construction sector to pursue pro-growth, pro-business, environmentally friendly measures to increase the emphasis on net zero. However, this cannot be driven by industry alone. Therefore, what the sector needs to see from Government is a commitment to a long-term policy programme that will stimulate growth, help localised businesses, promote sustainable practices in the built environment and apply the principles of levelling up to push the whole country towards a unified goal of net zero.

CIOB believes that the pursuit of a national retrofitting strategy is an example of such a programme.

The RMI of the UK's existing housing stock is an essential step in improving its energy efficiency. RMI of the existing housing stock presents one of the most significant opportunities to decarbonising the UK's built environment, and without doing so, the net zero target will remain

[8] University College London, Demolition or Refurbishment of Social Housing? A review of the evidence, 27 October 2014
[9] Greengauge, To Demolish or Not to Demolish
[10] Green Jobs Taskforce, Report to Government, Industry and the Skills Sector, 14 July 2021
[11] Government of the Netherlands, Support for small and medium-sized enterprises

out of reach. Further, it has been recognised that retrofit and renovation works can deliver economic stimulus and create local jobs.[12] Retrofit works are labour intensive and grounded within local supply changes; these are ideal projects to maximise employment within the sector, support regional growth and provide opportunities for training and re-training in low-carbon construction skills. This monumental task will require significant Government intervention, private sector investment and, most importantly, long-term political will and cross-party commitment.

We have provided more information on our proposals and views on shaping a National Retrofit Strategy under question 10.

Separately, there is also a case for regulation of embodied carbon in construction, given they can constitute the bulk of emissions for new buildings. According to some academic research as much as 50% of the total energy consumption of a building remains embodied in its materials.[13] Buildings and construction form a substantial portion of UK carbon emissions, contributing both operational carbon emissions (due to energy and water use) and embodied carbon emissions (due to the use of construction materials). The sum of these operational carbon has reduced in recent years due to the decarbonation of the grid, a trend set to continue with further decarbonisation alongside transitioning to electric heating.

As such, the embodied carbon emissions in construction contribute an increasing proportion of the whole life carbon emissions for most buildings, with one study indicating that over two-thirds of a low energy new building's emissions are embodied. Operational carbon emissions are directly linked to operational energy use, which are limited by Part L of the Building Regulations. There is no such parallel legislation limiting embodied carbon emissions.

Across the construction industry, firms are already calculating and reporting the whole life carbon emissions of their projects. This is typically done either voluntarily, or in response to client requirements. The Greater London Authority now requires a whole life carbon assessment as part of planning for projects over a certain size.

In response, several industry figures have created a proof of concept for the creation of a Part Z and Approved Document Z amendment to the Building Regulations. CIOB is a listed supporter alongside over 140 other organisations.

Part Z is written with proposed dates that are deemed to be achievable whilst remaining ambitious, requiring the whole life carbon assessment and reporting of all projects of more than 1000m2 (or 10 dwellings) from 2023 for non-domestic buildings, and 2025 for domestic; and the introduction of legal carbon limits on embodied carbon emissions from 2027, giving a period of time during which robust limits can be set. This proposed timescale follows the precedent set by other European countries such as the Netherlands and France that have already started progressing this topic. As with all contents of the proposed Part Z and Approved Document Z, these dates are subject to review and agreement by Government. For further information, please see: https://part-z.uk/

3. What more could government do to support businesses, consumers and other actors to decarbonise?

Aligning incentives to bring consumer behaviour in line with policy ambitions will be necessary to achieving net zero ambitions. Focusing on retrofit, for example, any strategy must seek to

[12] Federation of Master Builders, Cut the VAT: A proposal for building back better and greener, 1 March 2021.
[13] Gaspar, P.L. and Santos, A.L., Embodied energy on refurbishment vs. demolition: A southern Europe case study, Energy and Buildings, 2015

drive demand and activity, whilst balancing with financing, funding models, skills and competency.

While finance is crucial, evidence suggests that simply granting money for retrofit, without grappling with consumer sentiment, does not deliver significant results.[14] In Northern Ireland, the 2020 Zero-In on NI Heat networking project-initiated conversations on barriers and opportunities for heat decarbonisation in Northern Ireland among consumers and industry stakeholders.[15] The project found that consumers are willing to facilitate heat-sector decarbonisation, but that government leadership is crucial in this transition.[16]

Given that the tax system, and stamp duty in particular, is frequently used as a lever to achieve wider policy goals, there could be an opportunity to use this to reduce residential emissions. CIOB is currently finalising a policy proposal (although focused on the Republic of Ireland and Northern Ireland) to defer stamp duty liability, including the Additional Dwelling Supplement, 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.

4. Where and in what areas of policy focus could net zero be achieved in a more economically efficient manner?

Deciding who should pay for energy efficiency measures presents a challenge. This was articulated by the Business, Energy & Industrial Strategy Committee in its 2019 report, Energy efficiency: building towards net zero.

The report stated: "*In principle, we believe that those who benefit from energy efficiency measures should pay for them.*" But it added: *"... a combination of high upfront costs, long-term returns, split incentives between landlords and tenants, the 'hassle' of retrofit works, and a perception that energy efficiency investment is not captured by property prices, mean that asset owners are reluctant to invest in improvements even when it is cost effective to do so.*" [17] It noted that external benefits are not captured in market prices, so Government intervention is needed. We believe that the external benefits would vastly increase in current circumstances, where the nation faces large scale job losses.

Schemes that retain skills, provide job opportunities, and enhance local economies increase the net benefit to the Treasury through bolstering employment taxes, reducing unemployment and other welfare payments and increase spending in local economies, supporting the corporate tax take. Furthermore, the benefits of improved homes reduce the burden on the NHS freeing public sector resources that are currently under huge pressure. We believe that the current economic climate would justify greater direct funding from Government through grants and zero interest rate for loans.

5. What challenges has the net zero transition presented to your business?

[14] Tensay Hadush Meles, Lisa Ryan, Sanghamitra C. Mukherjee., Heterogeneity in preferences for renewable home heating systems among Irish households, 1 February 2022
[15] UK Energy Research Centre, Zero-In On NI-Heat, July 2020
[16] Ogunrin, O.S.; Vorushylo, I.; Okpako, O.; Hewitt, N., Domestic Energy Efficiency Scenarios for Northern Ireland, 2022
[17] Department for Business, Energy and Industrial Strategy (BEIS), Energy Efficiency: Building Towards Net Zero, July 2019

The challenges facing organisations who are trying to reduce their carbon footprint are innumerable and hard to define. However, the transition to net zero has presented particular challenges to SMEs whose constrained finances when compared to larger organisations can often impede their ability to invest in new technologies or working practices that are more carbon friendly. This is particularly seen in the case of public procurement.

In June 2021, the Government published its Procurement Policy Note (PPN) 06/21. The note, titled Taking account of Carbon Reduction Plans in the procurement of major government contracts,[18] sets out how the Government intends to take into account Carbon Reduction Plans in the procurement of major government contracts. Overall, its purpose is to support the UK Government's 2050 net zero goals of which decarbonising the public sector is a strategic pillar.

The note requires organisations tendering for public contracts to measure their annual carbon footprint. It also requires organisations to make this information public. While this is a laudable commitment to ensure contractors are committing to net zero goals, there has been some criticism from the industry on the impact it may have on SME contractors who are not able to measure and reduce their carbon footprint in the same way that large scale contractors are due to their smaller financial resources.

Greater clarity is needed from Government on the need for public sector contractors to meet net zero requirements and what allowances Government will make to ensure that SMEs who do not have the necessary resources to do this will still be able to participate in public sector tenders.

Alongside this, another key challenge has been a lack of trust from consumers. This is largely down to the uncertainty from businesses from a consumer perspective as stop-start policies such as the Green Homes Grant (GHG) have eroded consumer and industry trust. The Environmental Audit Committee's recent report, '*Building to net zero: costing carbon in construction'* highlighted this as a significant barrier to increasing the use of retrofitting in the built environment.[19]

The Government's £2 billion GHG scheme rightly acknowledged the contribution our existing homes make towards carbon emissions and the urgent need to tackle this issue. We welcomed the Grant as a positive first step, however, warned that it needed to be supported with long-term financing, effort and oversight.

As noted by the National Audit Office (NAO) one of the key failings of the scheme is that it did not attract the expected number of applicants within the timeframe set out by Government. This was for a number of reasons, predominantly because of the lack of confidence from consumers in the scheme due to either delays in issuing payment vouchers for the Grant or from significant difficulties in finding certified installers (with only 248 installers registered with TrustMark by November 2020). Alongside this, there was a significant risk associated with applying for a voucher, with 52% of applications being withdrawn or rejected by the scheme.[20]

We also believe that the short-term nature of the scheme acted as a disincentive to engagement. Potential installers and new entrants to the market faced a complex scheme, which rightly requires a high level of competence for participation. When factoring in the time needed to train, and the short window in which to complete the works, these barriers proved too high for many.

[18] Government Commercial Function, Procurement Policy Note 06/21: Taking account of Carbon Reduction Plans in the procurement of major government contracts, June 2021
[19] Environmental Audit Committee, Building to net zero: costing carbon in construction, 11 May 2022
[20] National Audit Office, Green Homes Grant Voucher Scheme, September 2021

Despite this, we agree that demand side mechanisms (such as voucher schemes) must be part of a wider package of measures to promote homeowners to undertake energy efficiency upgrades and other RMI projects.

6. What impacts have changing consumer choices/demand had on your business?

One of the key issues affecting consumer demand for new technologies or initiatives aimed at decarbonising the home or business is, as mentioned above, trust.

We have already mentioned how the failures of previous policy incentives such as the GHG have driven down trust from consumers, however, this is not solely linked to stop-start nature of one-off measures.

Consumer choice is often driven directly by the level of knowledge and understanding of a product combined with a sense of security around the individual or organisation providing the product. A lack of available, trained individuals to undertake the works set out in the grant scheme significantly dissuaded those whose applications were successful from following through with the works as a lack of competition amongst providers offered no assurance of quality.

Alongside this, we believe that the public's awareness and understanding of low embodied carbon products may be limited due to several reasons, including concerns about poor quality workmanship, rogue traders, confusion over the work that needs carrying out and lack of understanding about the benefits and cost implications.

To alleviate these issues, we recommend that government utilises non-profit organisations such as TrustMark and other consumer advice bodies to provide broader advice of the benefits of such schemes. This would both encourage consumers to buy into the incentives and encourage workers to retrain or upskill to fill the skills gap to increase competitiveness.

7. Do you foresee a role for your business within an expanded UK supply of heat pumps, energy efficiency, electric vehicles, hydrogen economy or clean power?

Expanding supply and demand for technologies such as heat pumps requires system-level planning about who installs them, where to get them, and whether the network and infrastructure exists to reliably support these systems, especially in rural areas.

Under the current Government targets, 600,000 heat pumps will need to be installed annually by 2028, resulting in considerable demand for high quality, trained installers who understand the challenges that the UK's existing housing stock presents. There needs to be significant training and accreditation support to create the additional professionals to deliver the heat pumps.

In terms of training, professional and trade bodies, like CIOB, have a key role to play in developing relevant accreditation and training that is recognised by academia and industry. Our CIOB Academy operates as the home of professional development resources designed to help those in construction or new to the industry to further their careers, develop practical skills, gain qualifications and work towards membership of the Institute. However, training competent installers with relevant qualifications takes time, money and requires certainty and we emphasise that stop/start policy levers do not provide the longevity needed for investment.

8. How many green jobs do you estimate will be created in your sector by 2030?

In March 2021 the Construction Industry Training Board (CITB) released a report, titled Building Skills for Net Zero, which details the opportunity that legally binding carbon neutrality targets present for the construction industry.[21] In the report, CITB highlight that a new set of skills and services will need to be developed in the construction industry in order to future proof buildings against climate change while also retrofitting the existing housing stock.

There are several factors to consider when estimating the number of new jobs that will be created in the industry by continuing to pursue, or further pushing net zero as a principle of construction. One way to understand how many jobs will be created is to look at the number of required workers needed to complete a transition to net zero. For example, CITB estimates that the UK requires at least 59,000 plumbers and heating, ventilation and air conditioning workers required to install heat pumps alone by 2028.

Indeed, the Government's long-awaited Heat and Building Strategy included developing an incentive framework to drive market growth in heat pumps from around 35,000 to 600,000 installations (across domestic and non-domestic buildings) per year by 2028 and around £450 million investment in the builder upgrade over 2022/23 to 2024/25.[22] However, there was little detail regarding scaling up capacity, although the strategy did note on the need for those delivering to be competent and registered with TrustMark.

In total, the report suggests that 350,000 new full-time employees will need to be generated by 2028 to deliver improvements to existing buildings that will reduce energy demand. This represents a 13% increase in the overall size of the UK construction workforce. At present this number is not being met. If we are to decarbonise an estimated 27 million residential buildings alongside two million non-residential buildings more dialogue needs to take place between Government and the industry.

The Federation of Master Builders (FMB) has endorsed the CITB research, and the following breakdown of the skills needed to carry out wide-scale national retrofitting. They include:

- At least 50,000 retrofit coordinators
- At least 86,500 retrofit project managers
- At least 50,000 heat pump installers
- Increased numbers of energy assessors as the use of Energy Performance Certificates increases
- Upskilling existing insulation installers to meet new minimum standards[23]

These are just a rough estimate of the number of new workers needed in the construction industry in order to carry out a successful national retrofitting strategy. However, at present there is a significant gulf between the skills which exist, and those which are required to practically deliver a national retrofit strategy.

As a professional, accreditation body, we recognise the vital importance of ensuring graduates meet the necessary industry requirements and can effectively transition to the workplace environment. However, we believe more built environment courses need to be introduced at a secondary school level as part of the national curriculum. In Autumn 2021, a GCSE in the built environment became available to centres in Wales for teaching.[24] This has provided tangible opportunities for students to practically apply their learning of mandatory subjects, including Maths, English, and Science, as well as optional subjects, such as Design and Technology, Computer Technology, Geography, and Art and Design. CIOB urges the Government to follow

[21] Construction Industry Training Board (CITB), Building Skills for Net Zero, March 2021
[22] HM Government, Heat and Buildings Strategy, October 2021
[23] CITB, Net Zero and Construction: Perspective and pathways, November 2021
[24] WJEC, New GCSE in Built Environment

suit and introduce this vocation in England to support and inspire future generations of talent to meet our infrastructure, housing, and environmental needs.

9. How can we ensure that we seize the benefits from future innovation and technologies?

CIOB has consistently called for the implementation of post-occupancy evaluation of buildings. It may seem absurd to those outside the industry that it is not a matter of routine to test the performance of buildings against the aspiration of the initial design, but it rarely happens. Moreover, it is a concern that lessons from both good and bad outcomes are not being routinely fed back into the industry to promote innovation and overall improvement in performance.[25]

For instance, recent research has shown that less than one-third of the properties observed performed reasonably in line with their predicted heat loss, and challenges with the operation and in situ use of Energy-Efficient Technologies like heat pumps and solar panels were common. These findings both suggest that as-designed specifications cannot be presumed to align with in situ performance and underscore the importance of collecting data on building performance. Improving building performance will require improvements in the monitoring and performance feedback collected during construction and throughout occupant use. Monitoring allows for course correction during construction and ensures that effective system maintenance and adequate standards of living are achieved.

In order to seize the benefits offered from future innovation and technologies, it is imperative that a robust evidence base of 'what works, for whom and when' is developed to inform future research, innovation and ultimately, effective public policy. As such, we support a wide post-occupancy evaluation of buildings that would focus not only on their performance in terms of energy use, emissions, the well-being of occupants, but also their impact on the local area.

10. Is there a policy idea that will help us reach net zero you think we should consider as part of the review?

If we are to retrofit 29 million homes by 2050 – that is a million a year or 20,000 each and every week – than we urgently need a National Retrofit Strategy. Not only will this contribute to our legally binding carbon targets, but it will also create new jobs, deliver growth across the country and take many people out of fuel poverty.

Improving the quality of our homes in the poorest areas would contribute significantly to the levelling up agenda. The Construction Leadership Council (CLC) has published a costed model for a National Retrofit Strategy[26], with over 50 supporter organisations signed up. As our industry is actively involved in developing guidance for repurposing buildings, we would be delighted to work with government to learn the key lessons from previous initiatives such as the GHG or the earlier Green Deal for Home Improvement.

Financing Retrofit

The national strategy could be supported by cutting VAT for the retrofitting and refurbishment of existing buildings to 0%. The current system financially incentivises the demolition and rebuild of buildings by not charging VAT on new build, compared to the retrofitting and refurbishment of existing buildings which is currently charged at 20%. This has serious negative impacts on

[25] Gorse, C., Building performance and measurement: its place within a variable climate – International Journal of Building Pathology and Adaption, January 2020
[26] Construction Leadership Council, Greening Our Existing Homes: National retrofit strategy, 24 June 2021

decarbonisation with both demolition and new build generating significant levels of embodied carbon as well as pollution, noise, traffic and disruption.

Creating incentives to encourage often hard-pressed owner occupiers to invest large sums of money upfront in RMI presents a major hurdle. Research by BEIS[27] into the energy efficiency of homes concluded that high upfront costs with few financing options was a barrier to uptake of RMI, while energy savings alone were not sufficient incentives for owner-occupiers.

Help to Fix – loan scheme

In order to deliver a national retrofit programme, the CIOB proposes that the Government introduce a 'Help to Fix' loan scheme.[28] This proposal is based on traditional and successful post-war policies for residential revitalisation, and we believe that it would ultimately deliver a range of benefits and prove financially net positive for HM Treasury.

The scheme would involve the provision of interest free loans by Government directly to owner occupiers for a large range of measures which, while predicated on improving energy efficiency, would also extend to other measures including loft conversions, extensions, annexes and home improvements. While the details will need to be further developed, essentially funding could be secured against a charge on the home, or alternatively, an equity stake. The repayment of the funding would be at the time of sale (a fixed closure date – for example 15 or 20 years after the loan – may be advisable to reduce legacy administration). The key aim would be to remove the initial payment of a lump sum by households to carry out retrofit work – one of the primary barriers to this type of work in the past.

The provision of loans is not a new concept and was the foundation of the much-criticised Green Deal, the failure of which is attributed to overly expensive loans, frequent changes to the scheme as a result of complexity and bureaucracy, and a lack of take up due to difficulty persuading households that energy efficiency measures were worth the expense. While it's true that a 'Help to Fix' mechanism would not be universally applied, demand for RMI must be enhanced through a blend of compatible, well-coordinated measures; it cannot be carried out in isolation.

Importantly, a Help to Fix scheme would allow for wider improvements than just energy efficiency, such as loft conversions or extensions. These would enhance the value of the home and, in many cases, the space available. This more packaged approach to home improvement should encourage more take up and benefit the overall built environment in producing more residential space.

Financially, the scheme proposed is likely to prove net positive for the Treasury. The costs to the Government would be low. HM Treasury would likely see gain through a higher tax take resulting from higher employment. This would provide a consequent boost to local economies, further supporting tax revenues. Simultaneously, enhanced quality of the built environment is likely to lead to improvements in societal health and wellbeing, and thus reduce the associated costs of poor health to the NHS.

In reducing cashflow pressures for households which are already looking to improve their homes, stronger subsequent spending elsewhere in the economy would help to support economic growth. Vitally, the scheme would support the Government to achieve it's 2035 EPC target commitment and net zero obligation.

[27] BEIS, Building a market for energy efficiency: call for evidence, October 2017
[28] CIOB, Improving the energy efficiency of our homes, March 2021

It should also be noted that any 'Help to Fix' or financing scheme should be embedded under a National Retrofit Strategy, as different supply and demand side measures may need to be introduced at different times to stimulate the market.

Previous attempts to tackle retrofit have resulted in well-documented failures, exacerbated by years of stop-start policy, a lack of finance mechanisms and the absence of a coordinated national strategy. Past schemes have prioritised single measures, which impede a whole house approach to retrofit and result in the uptake of inappropriate single measures that negatively impact buildings and must be rectified later at great expense.

The challenges with retrofit are complex and it is unlikely that a single policy will be effective. Multiple schemes spanning a period of years are likely to be needed, working in conjunction to deliver this national retrofit strategy.