LESSONS FROM LAST TIME:

A REVIEW OF EVIDENCE ON THE FIRST DECENT HOMES PROGRAMME IN THE SOCIAL AND PRIVATE RENTED SECTORS.

NORTHERN HOUSING CONSORTIUM
VOICE OF THE NORTH

UK COLLABORATIVE CENTRE FOR HOUSING EVIDENCE

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About CaCHE

The UK Collaborative Centre for Housing Evidence (CaCHE) is a consortium of 13 institutions led by the University of Glasgow.

The centre, which was established in August 2017, is a multidisciplinary partnership between academia, housing policy and practice. CaCHE researchers produce evidence and new research that contribute to tackling the UK's housing problems at a national, devolved, regional, and local level.

About the Northern Housing Consortium

The Northern Housing Consortium brings together housing in the North to develop insight, influence and solutions for our members. The NHC is a not-for-profit membership organisation whose 140 members own or manage 9 out of 10 socially rented homes in the North.

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Executive Summary

1. Background and Objectives

The Decent Homes Standard (DHS), initiated by the then Labour government in 2000, established a minimum standard for social housing in England. DHS represented a significant increase in investment in the nation's housing stock. The current standard has been in use since 2006 (and can be found here). The Department for Levelling Up, Housing & Communities (DLUHC) is reviewing DHS as part of its agenda to improve standards for renters, expand opportunities for resident engagement, and create a sense of pride in communities. The government has proposed applying the renewed DHS across the social sector, and is consulting on the principle of applying it in the private rented sector (PRS). This report seeks to inform this initiative by providing an evidence review focused on implementation of DHS1 and contemporary housing issues relevant to the development of DHS2.[1] This evidence review has two primary objectives. The first is to act as a source of evidence to inform government strategy and policy on improving housing decency. The second is to offer insights for housing practitioners and professionals in responding to the renewed interest in Decent Homes, including lessons for implementation of a possible DHS2.

2. Key themes in the evidence review

The benefits of a holistic approach to decency in the dwelling, combined with long-term programmes and funding. Long-term partnerships were common in DHS1, and they were supported by the scale of the programme and relative security of funding. Long-term funding and programmes helped scale up the supply chain by providing a clear signal of demand. However, there was ambiguity in how decency should be assessed in DHS1 and standards varied between landlords. The evidence suggests that adopting a comprehensive approach to decency avoided the false economies associated with piecemeal intervention.

Resident engagement is key to building momentum around DHS2 and building trust. DHS2 is likely to be less focused on works such as kitchen and bathroom renewals, which were popular with residents in DHS1. Instead DHS2 may be more concerned with undertaking improvements that can be invasive and have the perception of offering less benefit to residents, such as electrical rewires. Building trust and momentum for DHS2 through effective resident engagement will be crucial. At the same time, the evidence suggests there are potential benefits to integrating DHS2 with net zero, using modernisation of the home as the sell for retrofit. However, current funding and administration is driving some landlords to deliver retrofit and planned maintenance via two separate programmes, this is overly restrictive where landlords would otherwise adopt a whole-house approach to renovation.

The need for localised coordination and collaboration to scale up. Local coordination and collaboration across organisations is beneficial in a number of areas, namely establishing

[1] Throughout the report we refer to the initial DHS as DHS1, and the hypothetical Standard currently under government consultation as DHS2.

procurement consortia to achieve economies of scale, coordinating skills and training strategies, and onboarding the PRS into DHS2.

The merits of a tiered standard beyond the front door, and a staggered approach. Although a holistic approach to decency within the dwelling has benefits, there is scope for a tiered Decent Homes Plus that includes improvements to the wider neighbourhood and communal areas where this is practical and feasible.. Successful estate regeneration often combines improvements to dwellings with resident-led investment in the wider environment. But not all landlords have significant leverage over conditions in the wider neighbourhood, notably small social landlords and much of the disparate PRS.

Planning for the legacy of DHS. It was widely assumed in DHS1 that a large programme dealing with the legacy of council housing disrepair would reduce the need for a similar programme in the future. That we are now considering DHS2 suggests the legacy of DHS1 did not receive sufficient attention. Adopting a holistic approach to assessing decency could help safeguard the societal investment in DHS2, alongside making maintenance of the Standard a central component of the strengthened Consumer Standards in social housing regulation, and integrating it into an overhauled PRS regulatory framework.

3. Summary of lessons learned

In each section of the review we identified lessons learned for practice and policymakers with some notable lessons outlined below.

Delivering at Scale: Procurement and Skills and the supply chain

Procurement

- A holistic approach to assessing decency that addresses all necessary works - in contrast to one that measures decency as one or two component renewals - may be more cost-effective in the long-run
- Long-term partnerships can support planning, supply chain development and joint learning, but they are not guaranteed success and need to be combined with proactive contract management and benchmarking
- Procurement consortia can provide economies of scale for value for money (VFM) and supply chain development
- Either a whole-house or component-led approach to delivery can succeed provided it is effectively planned, managed and communicated

Skills and the supply chain

- Supply chain development may be accelerated by partnering with contractors, local colleges and devolved institutions to inform skills and training strategies
- Frontline staff will need training in the details of the programme, and surveyors will need training in the details of DHS2 legislation to provide consistent estimates
- Short-term and siloed funding streams may inhibit the construction supply chain, make procuring at scale more challenging, hindering a whole-house approach
- Local authorities could help coordinate local procurement and implementation in the PRS; but they need clarity on their role, and sufficient resourcing and capacity building, especially where authorities do not hold housing stock
- Combined authorities could also support local procurement e.g. supporting strategy

development, bringing stakeholders together and expediting local skill development
- An awareness campaign for retrofit skills accreditation schemes could support building the supply chain

Maximising the benefits for residents: Resident engagement and social value

Resident engagement

- Successful resident involvement requires authorisation from organisational leadership and the adoption of multiple modes of engagement.
- Aligning resident participation structures to a programme's key performance indicators can support service improvement, and joint resident-staff training exercises can embed a 'one-team' ethos
- Education in the use of new technologies is critical to maximising the long-term benefits of installations

Social value

- Using DHS2 to increase the employment of residents will require targeted outreach to match residents with opportunities, and interventions to reduce barriers to employment (e.g. skills development, pastoral support)
- The government should provide clarity on a framework for defining and measuring social value in DHS2, although any framework should be flexible enough to evaluate the wide range of social value activities overseen by landlords
- Commissioning research and evaluation into 'what works' in producing social value could fill existing gaps in the evidence base

Decent Homes and the PRS

- Stock condition data in the PRS is poor, and attention needs to be given to improving data quality across the PRS
- PRS landlords will need support in the details of DHS2 legislation, how decency can be secured, and the associated administrative burden
- DHS2 should not be reliant upon PRS tenants flagging non-decency due to the power imbalance between tenants and landlords
- DHS2 should be integrated into a strategic overhaul and simplification of PRS legislation
- Local authorities need sufficient funding and resourcing to enforce decency in the PRS, as they currently struggle to resource the enforcement of minimum standards

DHS and complementary government priorities: Net zero, health and social care and levelling up

Net zero

- Residents may be more willing to accept energy efficiency works where they are combined with a wider programme of modernisation
- Failure to integrate DHS2 with net zero legislation and funding will make a whole-house approach to retrofit more difficult
- A clear technology pathway for net zero heating from government could provide greater certainty for landlords and the supply chain

Health and social care

- The health impact of DHS is difficult to quantify, but security measures may present a surprisingly impactful and cost-effective intervention - provided crime is not merely displaced elsewhere - as they improve subjective wellbeing and mental health
- Accessibility should be a mainstream consideration for DHS installations, and some measures can be incorporated relatively simply into programmes e.g. second

handrails, accessible window openers
- Home Improvement Agencies (HIAs) could have their remit and resources expanded to become a one-stop-shop for home improvement in the PRS

Levelling Up
- Neighbourhood improvements can support pride in communities, and may best be implemented via a tiered Decent Homes Plus, with the specific improvements determined locally

- Improvements to the estate and communal areas are often as valuable to residents as those within the dwelling, and may help increase demand for hard to let properties
- Resident consultation can help determine priorities for neighbourhood improvements

1. Introduction

In the context of a historic backlog of disrepair in the social housing sector, the Labour government of 2000 set a target to ensure all social rented households lived in *decent homes* by 2010. This target was later extended to the private rented sector (PRS), aiming for 70% of vulnerable households in the PRS to be living in decent homes by 2010. The government defined a minimum standard of decency according to the Decent Homes Standard (DHS) (summarised in Box 1). Local authorities could deliver against the target within their own resources if possible. But where this was not feasible, they were expected to deliver the programme through either a stock transfer to a housing association, setting up an arms-length management organisation (ALMO), or using a private finance initiative (PFI).

Although the target was not met - 305,000 social sector homes remained non-decent by 2010 (PAC, 2010) - the DHS programme was praised for raising standards across the social housing sector, both in terms of the physical condition of housing and the quality of service (CLG, 2010). Between 2001 and 2008, council housing landlords installed 810,000 new kitchens, 610,000 new bathrooms, over 1 million new central heating systems, and conducted 850,000 rewires (PAC, 2010). The government expected to secure the legacy of DHS by incorporating it into ongoing social housing regulatory inspections. Thus, DHS was intended to prevent a further backlog of disrepair, and decency maintained over the long-term (CLG, 2010).

Box 1: DHS Definition (2006 Update)
A decent home meets the following four criteria:

a) It meets the current statutory minimum standard for housing. Dwellings fail this condition if they contain one or more Category 1 hazards under the Housing Health and Safety Rating System (HHSRS)

b) It is in a reasonable state of repair. Dwellings fails this condition if:
- one or more of the key building components are old and, because of their condition, need replacing or major repair; or
- two or more of the other building components are old and, because of their condition, need replacing or major repair

c) It has reasonably modern facilities and services. Dwellings fail this condition if they lack three or more of:
- a reasonably modern kitchen (20 years old or less);
- a kitchen with adequate space and layout; l a reasonably modern bathroom (30 years old or less);
- an appropriately located bathroom and WC;
- adequate insulation against external noise (where external noise is a problem); and
- adequate size and layout of common areas for blocks of flats

d) It provides a reasonable degree of thermal comfort. Dwellings fail this condition if they lack effective insulation and efficient heating.

Source: Department for Communities and Local Government (DCLG), (2006). A Decent Home: Definition and guidance for implementation - June 2006 Update.

The 2006 DHS in Box 1 remains the current standard, but is now being reviewed by the Department for Levelling Up, Housing & Communities (DLUHC). In part, the review reflects a necessary updating of the standard as lifestyles change and new home technologies emerge. But reviewing the DHS is also a key commitment of two government white papers relating to the social rented sector and PRS (MHCLG, 2020; DLUHC, 2022a). These white papers have emerged in a context in which the government is aiming to overhaul regulation in both sectors to raise landlord performance, address recent disrepair issues, expand opportunities for tenant engagement, and engender a sense of pride in communities under its Levelling Up agenda (ibid.; DLUHC, 2022b).

DLUHC has conducted the review in two phases. The first, from spring to autumn 2021, investigated the case for updating DHS. The second is ongoing, and is consulting on the content of DHS and the principle of extending it to the PRS. The review's working group is assessing potential updates in seven areas:

- ventilation
- home security
- thermostatic mixer valves
- window restrictors
- electrical safety
- refuse management
- water efficiency (NHF, 2022)

Although DHS1 includes a thermal comfort criterion, this criterion is outside the scope of the government's review. Instead, energy efficiency improvements are mostly driven by the Department for Business, Energy and Industrial Strategy's (BEIS) Clean Growth Strategy, which is committed to upgrading as many homes as possible to EPC C by 2035. Despite this separation between departmental remits, there will be inevitable overlap between DHS1 and net zero in terms of the works and properties involved. And many landlords will consider the benefits of integrating the works into a single programme.

1.1 Scope of the review

The evidence review has two primary objectives:

- To act as a source of evidence to inform government strategy and policy on improving housing decency
- To offer insights for housing practitioners and professionals in responding to the renewed interest in Decent Homes, including lessons for implementation of a possible DHS2.[2]

In setting the scope for the review, we focus on best practice and lessons learned in housing management and policy that would support *implementing* DHS2. This includes a complementary focus on how DHS2 may support the achievement of related government objectives - e.g. net zero, health and social care - as well as reflections on where opportunities may have been missed in DHS1.

[2] Throughout the report we refer to the initial DHS as DHS1, and the hypothetical Standard currently under government consultation as DHS2.

By focusing on implementation, we do not rehearse debates relating to what should be the specific content of DHS2. In addition, we do not address certain issues that were prominent throughout DHS1, namely the relative merits or otherwise of the then government's decision to make DHS funding conditional upon stock transfer, setting up an ALMO, or PFI. This decision is set against reflections of the CLG Select Committee report on DHS1 delivery in which it was stated that:

> *"It may be argued that the particular status of the management organisation does not matter, and that each vehicle for implementing the programme has different strengths and weaknesses. [...] The evidence has argued strongly that the prerequisites for good housing management are: adequate funding; good asset management information, long-term planning and strategy; involvement of tenants and residents in setting priorities; and a clear structure of guidance and expectation"* (2010: 48).

The methodology for the review involved a review of existing literature from academic sources, policy and grey literature (n=66). We selected literature via a search of the Scopus and Google Scholar databases, and a purposive selection of sources identified through practice knowledge. We do not intend the literature review to be exhaustive but rather to offer a representative overview of the broad debates and lessons pertaining to the implementation of DHS1. The literature can be categorised into five groups:

- academic literature on DHS1 (n=9)
- governmental and select committee reports on DHS1 (n=6)
- grey literature on DHS1, including commissioned research by housing providers (n=5)
- academic literature on housing issues likely relevant to DHS2 (n=5)
- grey literature on housing issues likely relevant to DHS2 (e.g. retrofit, improving PRS standards) (n=41).

The literature review was complemented by semi-structured interviews (n=13) including executive leaders in social landlords, residents and stakeholder organisations. The interviews focused on lessons learned from those involved in DHS1 and identifying relevant evidence for the literature review. Due to time elapsed since DHS1, and the effect on institutional and interviewee memory, the evidence review relies mostly upon the literature review. We reference the interviews where they provide unique insight or illustrative examples.

1.2 Structure of the report

The report is structured into the following sections:

1. Introduction
    A. Scope of the review
    B. Structure of the report
2. Delivering at scale
    A. Procurement
    B. Skills and supply chain
3. Maximising the benefits for residents
    A. Resident participation

    B. Social value
4. Decent Homes and the PRS
5. DHS and complementary government priorities
    A. Net zero
    B. Health and social care
    C. Levelling up
6. Conclusion

Section 1 sets the context for the report. Section 2 considers how governments and landlords can deliver the programme cost-effectively and efficiently, by ensuring value for money (VFM) in procurement and scaling up the supply chain. Section 3 reviews how residents can exert influence upon, and derive maximum benefits from, DHS2. Section 4 focuses on the PRS. Section 5 considers how DHS2 can complement related government priorities, namely net zero, health and social care, and levelling up. And section 6 concludes by outlining cross-cutting themes. At the end of each section we provide a summary of the lessons learned. We split these into ‘lessons learned for practice’ and ‘lessons learned for policymakers’.

2. Delivering at scale

2.1 Procurement

Available estimates suggest that social landlords spent £37 billion (£44.2 billion in today's terms[3]) on the DHS1 by 2011, of which £22 billion (£26.3 billion today) was government grant funding (NAO, 2010). For context, the Social Housing Decarbonisation Fund administered by BEIS has committed £3.8 billion for retrofit over ten years. Consequently, DHS1 represented a dramatic stimulus for investment in the UK's housing stock, and it was imperative that landlords and governments used the money efficiently.

This section considers how providers achieved value for money (VFM) in procurement, with VFM referring to cost-effectiveness, and balancing cost savings with quality of provision. Rather than adopt a uniform approach, landlords often grouped around a varied set of procurement practices in DHS1. And so we structure this section around the relative merits of these contrasting approaches for the challenges facing DHS2. We also discuss the role of national government in securing VFM.

In sum, the evidence suggests effective procurement requires concerted effort and coordination across stakeholders. There are merits to both long-term partnerships and more traditional forms of procurement, some of which may be dependent upon the type of programme being procured (e.g. whether works require specialist contractors). And no contract structure is a substitute for active contract management. Procurement consortia may provide the necessary scale to achieve unit cost savings. But even those landlords that choose to go it alone are in tacit partnership with local and national governments, who can support VFM through strategy development, collecting and disseminating data, and scrutinising funding bids. The role of local authorities may be larger in DHS2 than DHS1 due to the incorporation of the PRS, which some evidence suggests may lend itself to area-based programmes. And devolved institutions may further support localised coordination through the provision of a collective voice. Local government will therefore need support from national government in building the capacity and competencies to support localised delivery.

2.1.1 Length of procurement: Long-term partnerships vs. traditional procurement

A recurring theme was that DHS1 had given impetus to long-term partnerships, in contrast to traditional procurement which is structured around ad hoc projects (Bennington et al., 2010). The majority of our interviewees operated long-term, open-book partnerships with contractors. It was widely felt that the length of the partnerships was conducive to accumulated learning and process improvements, resulting in unit price reductions. The security of a large, long-term programme meant landlords could avoid costly re-tendering processes. And both the literature and our interviews suggested long-term partnerships allowed for landlords to smooth their programmes over time, often coordinating with other housing providers, to avoid sporadic rushes to market that might lead to supply chain

[3] Calculated by the research team, assuming rate of inflation equivalent to the annual CPI figures from ONS, up to 2021 prices.

bottlenecks (ibid.). Hull City Council operated an open book partnering approach to DHS1, which involved intensive cost mining exercises and was reliant upon visibility of contractor costs; as a result, Hull was able to negotiate a 7% reduction in unit prices from partners in 2008/09 (ibid.).

Support for long-term partnerships was not unanimous, and their success was often contingent upon sensible contract management practices. In Bennington et al's (2010) review, one participant suggested that long-term partnerships came with the risk that clients would lose sight of changes in the market. In addition, some specialist works were more cost-effectively procured via traditional contracts. This view was echoed in one of our interviews, where the landlord initially had a single contractor for all external works under DHS1 - walls, roofs etc. - but later found a framework of contractors reduced unit prices, as this allowed specialist suppliers to tender. By contrast, long-term partnerships were often most successful under DHS1 when combined with contingency plans and active contract management; for example, the inclusion of break clauses, benchmarking unit prices, and active monitoring of the extent of reliance upon sub-contractors to ensure quality control and accountability (ibid.).

One of the common benefits of long-term partnerships under DHS1 was the ability to secure fixed unit prices, and therefore long-term VFM savings. But this rigidity could be a double-edged sword depending on wider market conditions. When the credit crunch hit during DHS1, some clients found it difficult to renegotiate prices, and renegotiations damaged the partnership relationship (ibid.). This risk was also raised within our interviews. One interviewee acknowledged that the success of their procurement was in part circumstantial, as their programme began at the start of the credit crunch, which gave them leverage as a purchaser due to low demand in the construction sector.

2.1.2 Unit of procurement: whole-house vs. component

When discussing a whole-house vs component approach, we need to first clarify in what context this comparison is being made. For this, we make a distinction between *assessing decency* and *delivery methods*. The former is the DHS outcome and the latter is the process for achieving it, both of which may be either whole-house or component-led.

In assessing decency, a whole-house approach would remediate all necessary issues in the dwelling before declaring decency, whereas a component approach might allow for a dwelling to be decent if it replaces one or two components, but neglects some other necessary repairs. Ambiguity in DHS1 allowed for the legislation to be interpreted in either way (CLG, 2010). Our evidence suggested that, at the macro level at least, a whole-house approach to assessing decency might be the most cost-effective long-term approach. Select Committee evidence regarding DHS1 suggested that many programmes became de facto kitchen and bathroom programmes, which was sufficient to meet a narrow definition of decency, but obscured a wider backlog of works that would become apparent post-2010 (ibid.; ODPM, 2004). Some of our interviewees described the reduction of decency to new kitchens and bathrooms as a 'tickbox exercise' that ultimately presented a false economy. They explained that standards of decency could vary widely between organisations, and this

often overlooked necessary investments such as improving plasterwork or conducting rewires. Neglected maintenance could place pressure on other budgets, either at the time - one interviewee had to use their responsive repairs budget to remediate plaster that had been damaged during DHS1 renewals, placing pressure on their repairs service - or in the future, for example under a putative DHS2.

In contrast, landlords may *deliver* decency via a whole-house approach, which would entail an integrated programme upgrading each property in a singular hit, or component-led approach, with separate programmes for each component. *Delivery* differs from *assessing decency* in that the end result may be the remediation of all necessary repairs, regardless of whether this is achieved in one or multiple programmes. The discussion between whole-house or component approach to delivering decency illustrates the balancing act between cost and quality in procurement.

The balance of evidence in the literature arguably fell in favour of a whole-house approach, especially if DHS2 is combined with retrofit (e.g. Webb et al., 2020; BRE, 2021; NHC, 2021; Bryson, 2021; UKGBC, 2021). But this was by no means unanimous (CIH and Orbit, 2021; Jones et al., 2016). A whole-house approach may provide quality of service by reducing the number of visits, and is more conducive to having a singular point of contact for residents (NHC, 2021; Bryson, 2021). Similarly, it may reduce the risk of damaging components or the fabric of the building on later visits (Savills, 2021). However, a whole-house approach may be hard to coordinate and achieve where government funding is insufficient. It could also entail installing technologies where the supply chain is untested and for which the future maintenance costs are uncertain. And there is no guarantee the process is less disruptive for tenants if conducted poorly (CIH and Orbit, 2021; Marrin et al., 2015). If combined with retrofit, a whole-house approach would reduce negative externalities by expediting decarbonisation, and there are some success stories in whole-house retrofit (Benton and Power, 2022). Nevertheless, a demonstrator project of whole-house retrofit in London has faced significant difficulties, including identifying contractors, and securing adequate stock condition data for procurement due to the level of technical detail involved (GLA, 2018). An evaluation of the London project recommended dedicating significant time to resident engagement for whole house approaches due to the extensiveness of the works (ibid.).

A component-led approach was most common amongst our interviewees in DHS1. Reasons included reduced unit prices per component and the inclusion of specialist contractors in tenders. One interviewee also explained they were integrating retrofit into each of their existing component-led programmes - for example installing photovoltaic panels as part of their roofing programme, and battery storage with electrical rewires - which they suggested avoided duplicating the costs of expensive items such as scaffolding. The rigidity of a component-led approach can affect the level of customer service, for example a resident may need new windows, but the programme is only set up for new kitchens and bathrooms. And it likely involves more visits and contact points.

Consequently, the evidence considered might have been weighted towards a whole-house approach, but it would be false to say there was an irrefutable consensus. Rather the evidence suggested that perhaps the most important factor was the quality of the work, with consistent communication and accredited installers being necessary to build trust in either

approach (NHC, 2021). Residents have also stressed the importance of effective planning and resourcing, high-quality materials, and mechanisms for accountability such as post-hoc inspections (ibid.).

2.1.3 Scale of procurement: single landlords vs. procurement consortia vs. area-based

For some of the larger social landlords, including some of our interviewees, they had sufficient size to procure their DHS1 programme as a single landlord. Since DHS1 there has been a growing number of large social landlords, with some housing associations now owning over 100,000 homes (Marsh, 2018). Nevertheless, even the largest landlords are typically reliant upon some form of collaboration to match the scale of their ambitions. The growth of large landlords has been driven by the desire to scale up their development capacity, but this has been accompanied by many landlords engaging in joint ventures, special purpose vehicles, equity investment arrangements and development consortia (ibid.). Among our interviewees who procured as a single landlord under DHS1, many still visited and learnt from other social landlords to understand best practice. Working in partnership with other landlords can be an effective way of building organisational capacity in new areas, sharing risk, and balancing scale with localised knowledge (Graham, 2006). Consequently, landlords who procure independently may still benefit from a range of partnerships that vary in terms of their formality, for example cooperation agreements that allow for sharing of contractor frameworks or resources when working in a similar area,[4] to professional networks that disseminate lessons learned.

By contrast, for many landlords engagement in a procurement consortium helped provide economies of scale for DHS1, and a forum for best practice and benchmarking (CLG, 2010). The national government supported this practice by setting up the National Change Agent for Housing, a now defunct initiative that established fourteen procurement consortia, covering 33% of the social sector DHS1 programme. Estimated savings from these fourteen consortia amounted to £590 million throughout DHS1 (PAC, 2010). More recently, there has been a suggestion in sections of the housing sector that procurement consortia could help alleviate ongoing supply chain pressures (Kennedy et al., 2021; CIH and Orbit, 2021).

The question of scale is likely to be pertinent and challenging for DHS2 given that it is proposed to apply to the PRS. Consequently, one source of debate in the literature is on the merits of a landlord vs. an area-based approach to procuring the programme (Webb et al., 2020; Savills, 2021). Advocates of an area-based approach argue it would provide the necessary economies of scale to on-board PRS properties, reducing unit costs and making renovations potentially more appealing to PRS landlords. And the scale provided could be conducive to leveraging other forms of funding. It may also be more cost-effective at a macro level as it would prevent having to upgrade PRS properties on an ad hoc basis, and would facilitate planned programmes for components such as roofs and external wall insulation

[4] For an example, see the development cooperation agreement between Brent LA and Network Homes, available at: https://democracy.brent.gov.uk/documents/s95738/07.%20Cabinet%20Report%20-%20Collaboration%20with%20Network%20Homes.pdf

where areas have a large number of right-to-buy (RTB) properties now in the PRS (Webb et al., 2020; HCLG, 2021).

The principal difficulty with an area-based approach to procurement is coordination across disparate actors. In the literature, a number of local institutions were suggested as having the potential to play a key coordinating role, including local authorities, combined authorities, and local enterprise partnerships (LEPs) (Hackett, 2018; Crisp et al., 2017). Reports frequently referred to local authorities as knowledgeable and trusted bodies within their local areas who could support cross-tenure procurement, for example by helping develop local strategy and fill stock condition gaps in the PRS (BRE, 2021; Audit Commission, 2009; Preece et al., 2021; HCLG, 2021). Combined authorities were seen as potentially having a complementary role, including bringing together stakeholders that work across local authority boundaries, providing a collective voice for funding settlements, and disseminating funding and best practice (Hackett, 2018; Crisp et al., 2017).

However, local bodies would need support from the national government in building the capacity and competencies to play this coordinating role. A HCLG Select Committee (2021) concluded that in the context of net zero, the exact roles and responsibilities of local and national government in relation to one another should be set out in an agreed framework. The need to fund local authorities adequately over the long-term was a consistent theme across the literature (ibid.; Hackett, 2018). The housing and planning services of Northern local authorities were disproportionately affected by austerity in terms of budgetary cuts and consequent loss of skills (Hincks et al., 2020). In particular, national government would need to provide more intensive and targeted support to build capacity in local authorities who no longer hold housing stock, if the latter are to coordinate local programmes (Welsh Government, 2021).

2.1.4 The role of the national government

During DHS1 national government directly promoted VFM in a number of ways. The NAO (2010) concluded that the Communities and Local Government (CLG) department had a unique opportunity to promote VFM as a body with oversight of the whole programme. The NAO highlighted a number of CLG practices that promoted cost-effectiveness, including scrutinising and assessing local authority funding bids, utilising BRE data on build costs to challenge proposed unit costs in funding bids, and prefacing funding release for ALMOs with Audit Commission inspections to ensure they could deliver (ibid.).

Nevertheless, national government missed opportunities to collect high quality evidence regarding VFM throughout DHS1. Although this had to be balanced against the administrative burden for landlords, NAO argued CLG had failed to adequately collect and disseminate data on costs and landlord performance, inhibiting the production of an evidence base on securing VFM (ibid.). Bennington et al. (2010) also reviewed the delivery of VFM by social landlords in DHS1, and concluded that although a significant number of cost-saving claims were made by landlords, they were often poorly evidenced or difficult to verify. And very few landlords could evidence cost savings across the programme as a

whole. Consequently, rigorous assessments of landlord performance and the cost effectiveness of different delivery methods may be a missed opportunity to address in DHS2.

2.2 Skills and supply chain

The housing sector is currently facing notable supply chain pressures. Homes England (2022) report that the cost of building materials has reached a "generational high", and this is compounded by a shortage of skilled labour. A survey of Welsh CIH found that almost 90% of respondents were having moderate or significant issues in accessing materials and products (Kennedy et al., 2021). The convergence of a number of events has contributed to the issue, including COVID-19, EU withdrawal, the energy crisis, and the competing demands of decarbonisation and building safety (ibid.; Benton and Power, 2022). In this section we consider three factors that may help or hinder the skills and supply chain delivering DHS2:

i. The programme length and funding mechanism
ii. Partnership working and local coordination to address localised skills gaps
iii. Training for staff supporting delivery

2.2.1 Programme length and funding mechanism

The length and size of programmes, and the nature of their funding, sends a critical signal to supply chains about the extent and security of demand. There was consensus among our interviewees that long-term DHS1 programmes with relative security of funding were conducive to supply chain development.

The long-term scope of DHS1 was often contrasted with the stop-start nature of retrofit programmes and funding throughout the 2010s. Both the interviews and literature suggested the short-term funding available under the government's Green Deal and Green Homes Grant schemes, compounded by their administrative problems, hindered supply chain development. The design of these schemes introduced programmatic uncertainty, contributed to 'false dawns' in industries such as solar panels, and negatively affected trust in government schemes within the construction sector (Preece et al., 2021; HCLG, 2021; Mawhood et al., 2022; Johns and Longlands, 2020). The ECO funding available through energy companies via on-bill charges has also been utilised for energy efficiency works. Yet Johns and Longlands (2020) accuse the short-termism of ECO of incentivising opportunistic behaviour from low quality suppliers, with some landlords later removing poor quality solid wall insulation associated with ECO schemes. Some interviewees also pointed out that short-term funding could cause periodic spikes in demand, which has been their experience through the Social Housing Decarbonisation Fund administered by BEIS. As such, they advocated staggering the release of programme funding.

By contrast, in our evidence base opinions were mixed as to the effect competitive bidding may have on supply chain development, which is commonly used as a means of distributing programme funding to local authorities. On the one hand, competitive bidding may increase clients' administration costs, and the risk of unsuccessful bids may introduce uncertainty to long-term plans that damages the relationship with contractors (HCLG, 2021). On the other

hand, some of our interviewees argued that, assuming the funding is long-term, competitive bidding could force landlords to consider issues such as supply chain management in their bids, and was a mechanism to ensure they had the capacity to deliver.

2.2.2 Partnership working and local coordination

Partnership working and local coordination can be utilised to address localised skills gaps. There were cases where this was done effectively in DHS1, with several social landlords helping establish construction training facilities (Bennington et al., 2010). Homes for Haringey held jobs fairs to match contractors with apprentices, and Ashford Council and their contractors helped set up the National Skills Academy for Construction in the South East (ibid.). A recent report on skills gaps in retrofit industries recommended social landlords conduct outreach with local colleges and partner with enterprise councils, to promote construction careers (Johns and Longlands, 2020).

The evidence base often highlighted combined authorities as a potential coordinating body for addressing skills gaps. Some combined authorities have devolved responsibility for adult skills budgets, which could be prioritised on construction and retrofit skills (ibid.). Interviewees suggested the work of the Greater Manchester Combined Authority (GMCA) in expediting housing delivery and net zero could provide a replicable model. GMCA has brought together stakeholders in government, business, education and housing to develop an action plan to promote careers in retrofit, improve the quality of training, and upskill workers in related industries (GMCA, 2022). GMCA has signed a Memorandum of Understanding with a consortium of local housing providers to boost housing supply and share best practice (Crisp et al., 2017). A similar model of partnership may provide the scale, resources and oversight necessary to scale up a DHS2 supply chain.

Our interviewees highlighted that the scale of DHS1 lent itself to large, national contractors, who often focused their tendering efforts on densely populated urban areas. Whereas rural providers were at times more reliant upon a smaller pool of less mature suppliers. Localised partnerships may be particularly important in providing economies of scale in rural areas to scale their local supply chain (Preece et al., 2021).

To upskill workers in new technologies, coordinating bodies may be necessary to promote awareness of skills accreditation schemes. TrustMark is the government endorsed accreditation scheme for works relating to home heating systems, and the Microgeneration Certification Scheme (MCS) provides quality assurance for low-carbon heating installations. Johns and Longlands (2020) found there is a severe shortage of TrustMark and MCS accredited installers in the North of England. Consequently, they suggest BEIS undertake a national accreditation awareness raising campaign, supported by localised campaigns from combined authorities, local authorities, and social landlords. Social landlords could also promote routes to accreditation with their suppliers (ibid.).

2.2.3 Training for staff supporting delivery

Skills gaps relating to housing improvement and retrofit do not just exist within external partners, but also landlord organisations. Some social landlords have reported upskilling

their staff to bring functions in-house as a mitigation strategy for current supply chain pressures (Kennedy et al., 2021). Critically important for DHS2 are frontline and customer facing staff, as knowledgeable staff and accurate communication are a key factor in building trust among residents in the benefits of housing renovations (NHC, 2021; Bryson, 2021). Particularly important issues for staff include:

- knowledge of the extent and sequencing works (NHC, 2021);
- how new technologies function;
- the anticipated outcomes to avoid overpromising (e.g. should the works eradicate mould problems or reduce energy bills?);
- having a shared understanding of concepts such as 'net zero' (Bryson, 2021);
- managing tenant expectations and contingency planning should supply chain pressures continue (Kennedy et al., 2021); and
- awareness of leaseholder rights and obligations (Bennington et al., 2010).

Furthermore, DHS programmes are inherently reliant upon the stock condition estimates of surveyors, yet research has shown that there can be wide variation between surveyors in terms of their assessments of decency (Kempton, 2004). Some variation is inevitable, but it could be mitigated through careful training of surveyors in the requirements of the Standard (ibid.). To an extent, improvements in the accuracy of survey estimates could help ease bottlenecks in the supply chain, for instance by reducing the amount of unnecessary early component renewals, and smoothing some of the peaks and troughs in programmes that come from misapplied rules of thumb relating to component age and condition (ibid.).

Delivering at scale: lessons for practice

- Long-term, open book partnerships can support planning, supply chain development and joint learning, but they are not guaranteed success and need to be combined with proactive contract management and benchmarking
- Procurement consortia can provide economies of scale for VFM and supply chain development
- Either a whole-house or component-led approach to delivery can succeed provided it is effectively planned, managed and communicated
    - A whole-house approach to delivery reduces the contact points for residents and the risk of the fabric being damaged later; resident engagement is key to making a whole-house approach successful
    - A component-led approach can reduce unit costs per component, but is less responsive to the varied needs of properties and residents
- Supply chain development may be expedited by partnering with contractors, local colleges and devolved institutions to inform skills and training strategies
- Frontline staff will need training in the details of the programme to provide consistent communication, and surveyors will need training in the details of DHS2 legislation to provide consistent estimates

Delivering at scale: lessons for policymakers

- A holistic approach to assessing decency - in contrast to one that reduces decency to one or two components - may be more cost-effective in the long-run; a piecemeal approach may present a false economy by putting pressure on other budgets, either in the present (e.g. repairs) or in the future (e.g. neglected

necessary works)

- Short-term and siloed funding streams may inhibit the construction supply chain, make procuring at scale more challenging, and hinder a whole-house approach to decency where this is the most appropriate strategy
- DHS1 required substantial government investment; £26.3 billion (in today's money) was invested from the public purse over ten years, a far greater amount than the commitments of contemporary retrofit funds
- Local authorities represent trusted and knowledgeable bodies that may help coordinate local procurement and implementation in the PRS, and combined authorities may also support local coordination by bringing stakeholders together, disseminating funding and best practice, and expediting skills strategies; but these institutions need clarity on their role, and sufficient resourcing and capacity building, especially where local authorities do not hold housing stock
- An awareness campaign of retrofit skills accreditation schemes could support building the supply chain

3. Maximising the benefits for residents

3.1 Resident participation

DHS1 provided a number of benefits beyond investment in properties, notably the impetus it provided for resident participation in the social sector. Resident participation may be seen as an umbrella term for mechanisms in which residents exert influence on landlord activity (Hickman and Preece, 2019). Underneath this umbrella, one of our interviewees distinguished between resident involvement and resident engagement. Resident involvement describes mechanisms to incorporate tenant voice into services and governance. Whereas resident engagement describes the everyday interactions between landlords and residents inherent to service delivery. We do not consider this distinction rigid or canonical (for a discussion see Preece, 2019). But we use it here as a frame for the lessons learned in resident participation.

3.1.1 Resident involvement

For resident involvement, the evidence review identified the following areas in which involvement was common under DHS1:

- programme specification
- tenant choice
- procurement
- contract and programme management
- programme legacy

Social landlords routinely consulted residents to specify the scope and focus of DHS1. Nottingham City Homes (NCH) branded their programme *Secure, Warm, Modern* following resident consultation, as residents determined their priorities were window replacements, improved heating systems, and kitchens and bathrooms (Jones et al., 2016). One of our landlord interviewees undertook a participatory budgeting exercise in DHS1, which aims to democratise the budgeting process by giving a panel of residents scope to determine some of the programme parameters. Some landlords set up *materials panels*, whereby residents could explore and select the range of materials used in installation (Bennington et al., 2010). Finally, many social landlords undertook works beyond the minimum standard, and it was common for resident consultation to be integral to determining local standards (ibid.). Ashford Council determined the scope of neighbourhood enhancements in collaboration with a Tenants Forum, which resulted in improvements to external decorations, landscaping, and parking (ibid.).

During DHS1 tenants were typically given a degree of choice over the fittings and colours for kitchen and bathroom installations (Bennington et al., 2010). Show flats were common to demonstrate the completed works, and this afforded tenants some scope to improve the design. For example, Portsmouth City Council residents requested a smaller boiler to provide more storage space after visiting a show flat (Benton and Power, 2022). One of our interviewees cautioned against unfettered choice, arguing it needed to be exercised within practicable limits. They had found long-term customer satisfaction negatively affected by

choices made under DHS1, for example where old and atypical fittings were no longer in supply, or where new residents disliked the choices of previous residents.

DHS1 often prompted the establishment of mechanisms to involve residents in procurement, including setting up tenant-led procurement panels that would short-list and interview contractors (Bennington et al., 2010). A case study of resident involvement in AmicusHorizon found that a heating contractor selected by a resident procurement panel achieved a 30% reduction in costs relative to the previous supplier, although it is difficult to estimate what proportion of that saving was attributable to resident involvement (Manzi et al., 2015).

Once specified and procured, residents were often involved in scrutinising the DHS1 programme. Mechanisms for contract management included service review groups, complaints panels and tenant inspection groups (Bennington et al., 2010). Hull City Council established a Decent Homes Tenants Group that held monthly meetings throughout the programme to monitor performance against key metrics (ibid.). The Tenants Group could request in-person explanations from contractors for poor quality work, but resident scrutiny often acted as a preventative measure meaning that explanations were rarely required in practice (ibid.).

Customer satisfaction surveys presented a common, and less time-intensive, mechanism for resident influence (Valero-Silva and Jones, 2011). Customer surveys are most useful when they provide insight that can be used for meaningful action and improvement, as opposed to simply providing an aggregated satisfaction score (HACT, 2018). NCH utilised responses from their DHS1 surveys at multiple levels within the organisation; they discussed the lessons learned in contractor meetings and fed them into toolbox talks with operatives, and dissatisfied responses prompted a customer contact from the contractor (Valero-Silva and Jones, 2011). It is also important to ensure the survey mode does not discriminate against particular groups; NCH administered their survey by postal questionnaire, but found their samples systematically underrepresented people aged 41-59 and BAME residents (ibid.).

Finally, resident involvement is important to securing the legacy of investment. A common example under DHS1 was educating residents on the usage of new technologies and heating systems (Hulme, 2012). Jones et al. (2016) fit energy consumption monitors in two comparable properties that received heating upgrades at different stages in the DHS1 programme, allowing them to assess the impact of new heating against a relevant comparator. They found that the property with a new heating system still used more absolute energy than the property yet to receive the installation due to consumption habits, underscoring the importance of educating tenants on how to use heating efficiently, and ensuring systems are intuitive to operate.[5] Leeds City Council provides a more recent example, where they have used show homes and *Green Doctors* to educate residents in the usage of ground source heat pumps (Benton and Power, 2022).

[5] Jones et al. (2016) did find that after both properties received the installation, the property with higher absolute energy consumption did have the greater relative reduction in energy usage compared to pre-installation, demonstrating the upgrade did have an effect on energy efficiency, albeit one tempered by consumption habits.

3.1.2 Resident engagement

For resident engagement we highlight lessons learned in service delivery and communications that help maximise the take up of programmes and resident satisfaction.

Regular communication with residents was highlighted as a key component of effective customer service in DHS1 (Bennington et al., 2010), yet the mode, source and content of communication also matters. A number of case study landlords in the literature provided dedicated resident liaison officers, which helped build trust and manage disruption to tenants throughout DHS1 by providing a visible and accessible single point of contact (ibid.; Benton and Power, 2022). Trusted staff members that residents interact with regularly may be useful for disseminating information (e.g. neighbourhood officers, repairs staff), or resident ambassadors (Bryson, 2021). Similarly, testimonials from residents can help make the case for the programme (ibid.).

The literature and interviews suggested that engaging residents in relation to certain component renewals was easier under DHS1, notably new kitchens and bathrooms (BRE, 2021). Therefore, the messaging around DHS2 may need to be more carefully planned, as residents often see upgrades such as electrical rewires and solid wall insulation as 'high-pain, low-gain' installations (UKGBC, 2021). The evidence base produced the following recommendations for effective communication around DHS2:

- cost is key - messaging should emphasise the potential savings from energy efficiency works (CIH and Orbit, 2021; Bryson, 2021);
- 'future-proofing' the home may be an appealing message i.e. making it more resilient to future energy inflation (UKGBC, 2021);
- avoid stigmatising terms such as *fuel poverty* (CIH and Orbit, 2021; Bryson, 2021); and
- 'healthy homes' and 'wellbeing' may be an alternative framing, but this has been used less in practice and therefore is less certain to be effective (Bryson, 2021).

DHS1 involved significant disruption and stress for many residents, with works sometimes overrunning and feeling 'invasive' (Gilbertson et al., 2006). Processes that minimise disruption are therefore important. Making contact with each resident before works start can help identify vulnerable residents in unsuitable housing that may need rehoming (Benton and Power, 2022). Conducting the works with residents in situ allows for communities to remain in place (ibid.), but landlords will often need to provide boxes (of sufficient size and number) to store belongings while the works proceed and provide assistance for residents with impaired mobility (Gilbertson et al., 2006). In any case, some disruption is inevitable, and so prior communication to explain the extent of the works and its rationale is critical, and so too is an effective escalation or complaints process, and compensation for damaged possessions (Benton and Power, 2022; NHC, 2021).

3.1.3 Benefits and challenges in resident participation

There was consensus in DHS1 that the impetus it provided to resident participation was a positive influence on the programme, producing a number of benefits (Bennington et al., 2010). Evidencing the impact of resident participation upon customer satisfaction is difficult,

but case study evidence does suggest improvements in resident engagement may correlate with higher satisfaction (Manzi et al., 2015). One means by which resident engagement might support customer satisfaction is avoiding the imposition of a one-size-fits-all approach to decency. Under DHS1, Circle Anglia found different elements of their enhanced local standard were preferred in different regions, with off-road parking popular on one estate, and the choice of ventilation system popular on another (Bennington et al., 2010). By contrast, there is case study evidence that customer satisfaction was negatively affected where landlords only upgraded properties to the minimum DHS standard (Morrison, 2013).

Cost savings may result from resident engagement activities. Effective engagement can prevent escalation of complaints and reduce expenditure on costly complaints panels (Manzi et al., 2015). And it may reduce the number of DHS refusals, which can be expensive in the long-run as homes are upgraded on a piecemeal basis once vacant (Bennington et al., 2010). Barnet Homes consulted residents on an enhanced local standard and material choices during DHS1 which they suggested produced efficiencies elsewhere in the business. For example, they estimated maintenance savings would result from replacing soffits and fascias with lower-maintenance materials while on-site. And they aimed to reduce expenditure on antisocial behaviour through security and neighbourhood improvements (ibid.).

Nevertheless, resident participation can be challenging. Some of our interviewees suggested that - in contrast to participation in governance structures such as Boards - DHS1 gave more impetus to smaller scale, consumerist modes of participation, or tenant panels focused on operational concerns such as customer satisfaction. And one interviewee suggested residents involved in governance should receive training in the skills required for the role. Furthermore, some interviewees had found the mechanisms that were successful under DHS1 difficult to replicate in more recent programmes, which they speculated were due to demographic changes and changes in expectations around the immediacy of feedback. There has been a dramatic expansion in digital methods of engagement since DHS1, but these may not be a direct substitute for some of the modes of engagement that are suited to dealing with complex issues such as building trust with dissatisfied residents (Hickman and Preece, 2019). Despite the challenges, interviewees were unanimous that resident engagement was invaluable to successful implementation, even arguing that the influence of residents was key to preventing the over-professionalisation of governance (see also Marsh, 2018).

For practitioners, the literature review identified a number of characteristics of effective resident participation. It is important to have a range of mechanisms for participation, combining light-touch with more intensive mechanisms, and in-person with digital interaction, so as to move engagement beyond the ‘usual suspects’ (ibid.). Due to the effort and costs involved, organisational leaders need to be ambassadors for resident participation as a prerequisite for success (ibid.; Preece, 2019). Aligning resident participation with organisational structures and objectives can help embed participation, for example by having resident panels in each of an organisation’s operating areas, or having resident panels scrutinise key performance indicators and report their findings directly to Boards (Manzi et al., 2015). A ‘one team’ culture can also embed participation, and can be supported by having staff, residents and contractors attend joint training sessions (ibid.).

3.2 Social value

Social value is a concept that is often loosely defined and interpreted in variable ways (Jones and Valero-Silva, 2021). In this report it is taken to mean the social, economic and environmental benefits that result from landlord and resident activities, including improvements in physical and subjective wellbeing, and positive externalities such as boosts to local economic activity and savings for external agencies (Hill and Murphy, 2019; Fujiwara, 2013; HACT, 2020). We thematically split this section into measuring social value, and producing social value.

3.2.1 Measuring social value

There have been significant developments in the measurement of social value since DHS1. Social value measurement typically attempts to express a ratio of social value produced to monetary investment, and there has been a proliferation of tools for quantifying the social side of this ratio in financial terms (Fujiwara, 2013). Some tools are 'sector agnostic', such as the National Themes, Outcomes and Measures (TOMs), which provides a database of financial figures to measure the social value of activities (Hill and Murphy, 2019). The National Housing Federation's Local Economic Impact Calculator, and the New Economic Foundation's Local Multiplier 3 (LM3), are calculators that estimate the economic impact of activities such as building new affordable homes or local supply chain expenditure (ibid.; Gibb et al., 2020). Using LM3, NCH estimated that for every £1 spent on their DHS1 programme, £1.36 of economic value was produced for Nottingham City (Jones et al., 2016).

The most common social value measurement tool in the housing sector is HACT's Social Value Bank (SVB) (HACT, 2020). The SVB adopts a wellbeing approach to social value; it uses nationally representative datasets to estimate the impact on subjective wellbeing of changes in socio-economic and housing outcomes - e.g. gaining employment, removing damp and mould - and then uses complementary datasets to estimate the monetary amount that would be required to achieve the same uplift in wellbeing, thus providing a financial estimate of social value (Fujiwara, 2013). It differs from the National TOMs in that the TOMs estimate the gross social value of an activity, whereas SVB estimates the net value of what has changed (Hill and Murphy, 2019). Following consultation with social housing stakeholders, HACT are in the process of expanding the SVB to include values for savings to the public purse from landlord activities, and values for environmental benefits (HACT, 2020). HACT has also developed a procurement toolkit for landlords to provide clarity to suppliers on how social value is being defined and how it should be costed in procurement, including customisable template forms (HACT, 2016).

The proliferation of measurement tools has not been perceived as unambiguously positive. In a review of social value in the housing sector Hill and Murphy (2019) argue that the array of measurement tools has contributed to inconsistent practice and created its own challenges through a confused landscape for practitioners. Trust in social value calculations can be undermined by wide variation in estimates between methodologies, an issue that can be compounded by the misapplication of tools resulting in dramatically inflated figures for social value (ibid.). Some of our interviewees expressed concern about the administrative

costs associated with social value measurement, seeing data collection as bureaucratic. Hill and Murphy have called for the government to bring clarity amidst this complexity by providing a simplified framework to operationalise social value in the housing sector (ibid.).

3.2.2 Production of social value

Hill and Murphy further argue the balance needs to be redressed in social value research, with less focus on measurement and more towards understanding 'what works' in the production of social value (ibid.). The evidence base on producing social value in housing is overly reliant upon case studies, and lacking in systematic evidence as to whether particular interventions or strategies were more or less effective. Nevertheless, seven broad themes emerged from the evidence base.

Firstly, targeted effort will be required to match employment opportunities to local residents. Zhang et al., (2021) provide causal evidence - via Glasgow's stock transfer, which they treat as a natural experiment due to changes in the city boundaries - that housing regeneration schemes provide a general employment boost to an area due to the economic stimulus of the investment. But this effect does not necessarily extend to social housing residents themselves, whose employment levels were unaffected in the study. Moreover, groups underrepresented within construction industries - such as women or lone parents - did not receive an employment boost. Consequently, matching opportunities to social renters or people disadvantaged in the labour market may necessitate supply side interventions focused on their specific barriers to employment (ibid.).

The second theme, accepting the caveat regarding targeted outreach, was that landlords frequently used the supply chain to stimulate local employment in DHS1. North Kesteven District Council gave extra weighting in their DHS1 procurement to contractors employing local labour, and Wirral used the number of local jobs created as a KPI for their programme (Bennington et al., 2010). Wolverhampton Homes found it was necessary to dedicate significant time and effort during contract management in DHS1 to ensure the supply chain was employed locally, rather than relying solely upon the contract procurement phase (ibid.). One interviewee described how they managed the recruitment, administration and pastoral care for DHS1 apprenticeships in-house, which allowed them to secure 6-month resident placements with contractors, but retain assurance that the jobs were appropriately targeted and genuinely additional to what would be otherwise provided.

Thirdly, the time and effort involved necessitates authorisation from organisational leadership (Jones and Valero-Silva, 2021). Similar to resident engagement, the literature suggested leaders who are willing to invest in the production of social value, and act as a sponsor for the associated initiatives, are a prerequisite for success (ibid.).

Relatedly, the skill sets necessary for production and measurement of social value are not always equivalent. Landlords may need to upskill staff in data collection and analysis if they are involved in social value production, including contractor staff (Jones and Valero-Silva, 2021).

Partnering with, or even developing, specialist organisations can provide additional capacity and competencies. In DHS1, GM Procure and Parkway Green Housing developed PG Turnaround, a social enterprise that employed ex-offenders to clear void gardens (Bennington et al., 2010). Similarly, Ashford council contributed to the establishment of the aforementioned National Skills Academy for Construction, which included targeted interventions for homeless individuals (ibid.).

Leveraging other forms of funding may be necessary to support capacity building, and this can support partnership working. In DHS1 City South Manchester interviewed and recruited local residents to apprenticeships with their contractors, and then directed contractors to external sources of funding (ibid.).

Finally, it is important to develop an informed picture of the neighbourhoods and customers with whom you are working, from which you can outline a theory of change as to how you will achieve your intended impact (Jones and Valero-Silva, 2021; Gibb et al. 2020). Gibb et al. (2020) analyse a number of best practice case studies for social value generation in social housing, and conclude a unifying factor was the systematic evidencing and understanding of needs in their respective communities. Before undertaking a regeneration project, Provan and Power (2019) recommend understanding the area in detail by outlining priorities for investment under five headers: physical, financial, management, social, environmental. Following this, they recommend developing options for refurbishment in consultation with residents, and a Social Value Plan with associated objectives and measures (ibid.). In a case study regeneration on a Home Group estate, Provan and Power use HACT's SVB to assess progress against social value objectives, and estimate the ratio of social value to landlord investment at 12:1 (ibid.).

Ultimately, Hill and Murphy (2019) conclude that the most successful organisations use social value as a management tool rather than a measurement one. To be meaningful, social value should provide a framework for making decisions related to key landlord functions, and evidence which interventions are worthy of investment. Measurement is a necessary activity, but not the end in itself. Financial estimates of social value, and key performance indicators, should be aligned to the theory of change associated with an intervention. And evaluation should provide learning for continuous improvement (Jones and Valero-Silva, 2021).

Maximising the benefits for residents: lessons for practice

- Resident participation may improve customer satisfaction, prevent the application of an inappropriate one size fits all approach to decency, and produce cost-savings via procurement, complaints, and reducing refusals
- Successful resident involvement requires authorisation from organisational leadership
- A variety of mechanisms for resident participation can allow residents to engage via the mode, and to the extent, that they prefer
- Aligning resident participation structures to programme KPIs can support service improvement, and joint resident-staff training exercises can embed a 'one-team' ethos
- Education in the use of new technologies is critical to maximising the long-term benefits of installations

- Social value is most effective as a management tool to direct decision making, as opposed to a technical measurement exercise
- Social value measurement should be embedded within a theory of change for an intervention, with measures aligned to the intended impact, and informed by a clear understanding of community priorities
- Matching residents with the employment opportunities from DHS2 will require targeted outreach and supply-side interventions

Maximising the benefits for residents: lessons for policymakers

- To bring DHS in line with tenant expectations there is a case for a Decent Homes Plus, especially in the social sector, and this could be operationalised locally in consultation with residents
- The government could provide clarity on a framework for defining and measuring social value in DHS2, although any framework should be flexible enough to allow landlords to operationalise it in their context
- Commissioning research and evaluation into 'what works' in producing social value could fill existing gaps in the evidence base

4. Decent Homes and the PRS

One of the most important housing trends in the 21st Century has been the growth of the PRS, and its re-emergence as a tenure accommodating a significant number of low-income households (Powell and Robinson, 2019). Levels of non-decency in the PRS have been higher than the social rented and owner occupied for over a decade (EHS, 2021). Figure 1 shows that over one in five PRS homes is non-decent in England, but there is significant variation within the Northern regions. The North West is close to the English average and has substantially reduced the proportion of non-decent PRS homes since 2010. By contrast the proportion of non-decent PRS homes in the North East and Yorkshire and the Humber is higher than the English average, and has stagnated since 2010.

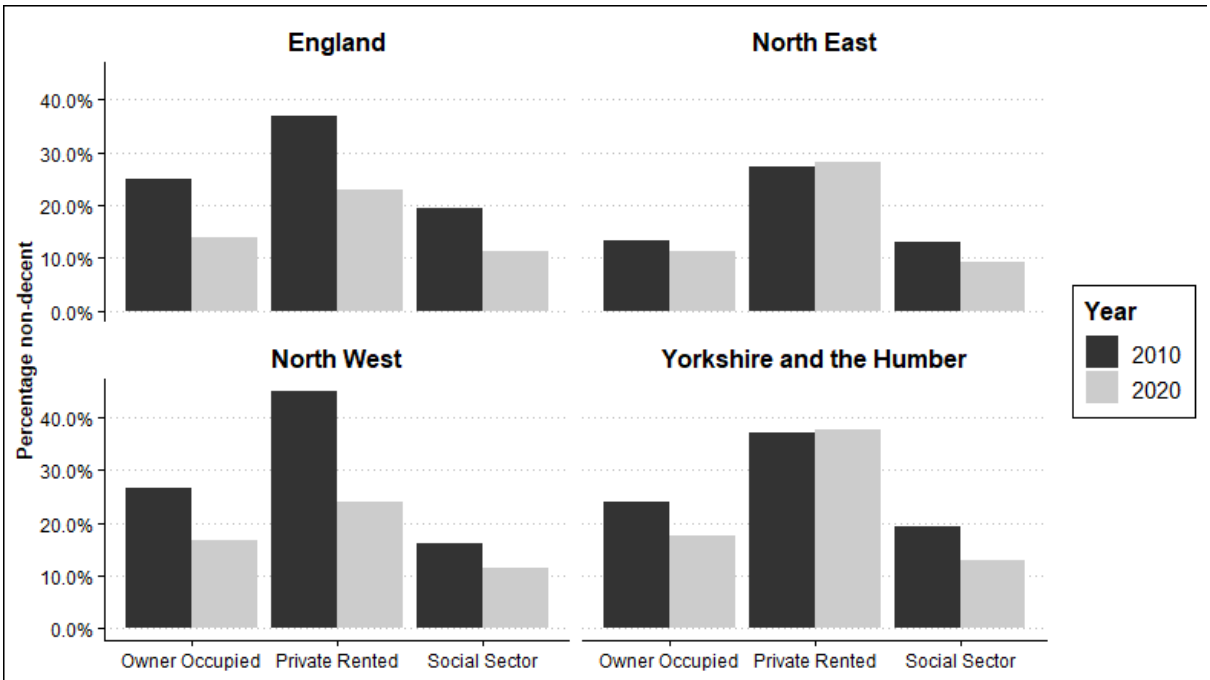

Figure 1: Percentage of non-decent homes by region and tenure in 2010 and 2020. Source: English Housing Survey, Regional Housing Trends Factsheet, 2020-21, Annex Table 2.

Under DHS1, CLG set a target to make 70% of the homes accommodating vulnerable households in the PRS decent. The target was criticised for being unworkable; Select Committee reports highlighted that targeting vulnerable households wasted significant resources in monitoring, and that the adopted definition of vulnerability - being in receipt of means-tested benefits - missed a large number of relevant households (ODPM, 2004; CLG, 2010). A target that combined measures relating to both household circumstances and housing quality was also impractical due to its dynamism; evidence submissions to the Select Committees pointed out that households moved in and out of periods of vulnerability and non-decent housing, and so the target could be met without any improvement in housing standards by removing all vulnerable households from the PRS (ibid.).

Instead, the current national government proposes applying DHS2 to the PRS as a whole. Yet the tenure has a number of features that make implementing minimum standards a

distinct challenge. Our evidence review outlines six main challenges that need to be overcome to implement DHS2 successfully.

The first issue is establishing a common standard across the PRS and social sector given the differences in landlord composition. PRS landlords are mostly small-scale, and 'amateur landlordism' is common (Marsh and Gibb, 2019). By contrast, there is a trend towards increasingly large and professional landlords in the social sector (Marsh, 2018). The government's Social Housing White Paper suggested the review of DHS would consider how it could improve the quality of neighbourhoods, the safety of communal areas and the accessibility of green spaces (MHCLG, 2020). But these are difficult criteria for many PRS landlords to have an impact upon given the disparate nature of the sector. Implementation of DHS2 will need to consider whether standards are equalised across sectors, or whether issues such as communal areas are merely best practice guidance for the PRS (see section 5.3.).

Secondly, leveraging additional finance to fund a PRS programme may be difficult. As levels of non-decency are higher in the PRS, it is likely the scale of investment required will be higher too. A number of the reports in this review proposed a mixed-funding model for achieving decency in the PRS. Suggestions include central government grants - either mean-tested to target vulnerable tenants or as part of wider area-based programmes of home improvement - and leveraging private sector finance, for instance through financial products such as equity loans or equity release (Webb et al., 2020). Nonetheless, past attempts to leverage private finance to improve housing decency in the PRS have had mixed results at best (Preece et al., 2021). Moreover, products such as equity loans and equity release may have limited appeal in areas of the North where incomes and house price growth are lower than national averages (Hackett, 2018). The Welsh Government (2021) piloted a lease based scheme to improve affordability and quality in the PRS, which included providing landlords with maintenance grants and interest free loans to upgrade properties. Perhaps unsurprisingly, landlords preferred grants to loans, and the rescinding of grants in later rounds of the programme meant some landlords withdrew their participation (ibid.).

Thirdly, consistent with the prevalence of 'amateur landlordism', there is a lack of knowledge of rights and responsibilities among PRS tenants and landlords. In a 2010 DCLG survey, 85% of private landlords responded that they had not heard of the HHSRS (Wilson and Bellis, 2019). Such issues led to calls for a review of the HHSRS, but the Coalition government instead published layperson guidance on health and safety hazards for renters (ibid.). Nevertheless, understanding of regulatory standards in the PRS remains poor (Marsh and Gibb, 2019). An evaluation of the aforementioned Welsh government lease based scheme found that many PRS landlords were unprepared for the administration involved, as a number of documents, certificates and surveys were not previously required of them by letting agents (Welsh Government, 2021). This suggests that DHS2 will need to engage PRS landlords early, and communicate clearly how the process of refurbishment and securing decency will proceed.

The fourth issue is a lack of data on PRS standards. Local authorities have significant gaps in PRS stock condition data, and the sample sizes of the English Housing Survey do not provide the granularity necessary for action (CLG, 2010; Centre for Ageing Better, 2020). A

review of enforcement of Minimum Energy Efficiency Standards (MEES) in the English PRS noted that many local authorities have a lack of confidence in available EPC data, finding that much of the data is out of date or missing (RSM, 2019). In addition, they suggested that there can be a 'race to the bottom' in EPC quality due to the commercialisation of assessments. For example, letting agents may use in-house EPC assessors with a vested interest in passing the property, or landlords may seek a favourable second opinion following an initial assessment (ibid.). This suggests that the body involved in filling stock condition data gaps needs to have the requisite autonomy and skill to do so accurately.

The fifth issue is that the PRS regulatory framework is seen as complex and ineffective. DLUHC is responsible for providing the legislative and regulatory framework for the PRS, but enforcement is split across different local authority functions (NAO, 2021). There have been targeted interventions in areas such as tenancy deposits, letting agent fees, and providing tenants legal redress if properties are deemed not 'fit for human habitation' (ibid.). Moreover, local authorities can enforce compliance with HHSRS if inspected (Rugg and Rhodes, 2018). However, PRS regulation has been described as "piecemeal", "out of date" and lacking an "overarching strategy", with there being thirty-six different pieces of relevant legislation (NAO, 2021; Rugg and Rhodes, 2018). This regulatory patchwork risks a lack of complementarity between interventions, and unintended consequences such as retaliatory evictions or rent increases when tenants raise issues (Rugg and Rhodes, 2018; Wilson and Bellis, 2019). As a corollary, the regulatory framework is overly reliant upon tenants alerting authorities to non-compliance, which is undermined as a regulatory mechanism by the power imbalance between landlord and tenant, meaning that many tenants under-report issues (Preece et al., 2021; Marsh and Gibb, 2019). This power imbalance may be somewhat mitigated through the proposed ending of Section 21 'no fault' evictions (Wilson et al., 2022), but implementation of such measures needs to be cognisant of the wider point regarding the often incoherent layering of new regulations without recourse to an overarching strategy. Potential solutions offered in the literature included the production of a governmental strategy for regulating the PRS, mandatory licensing or accreditation for landlords, and annual property MOTs (Rugg and Rhodes, 2018; CLG, 2010). In choosing the correct interventionary measure, the government will need to consider the potential quality of inspections if carried out as desktop exercises or by actors with misaligned incentives, whether interventions such as licensing and MOTs will complement or duplicate one another, and the issue of resourcing enforcement discussed immediately below (RSM, 2019).

As such, the final issue is that local authorities will need sufficient funding and resources to enforce DHS2. Evidence into implementation of MEES and HHSRS in the PRS cites a lack of capacity and resources within local authorities as a major barrier to enforcement (ibid.; Wilson and Bellis, 2019). Yet there is compelling evidence that local authorities with more active inspection regimes have fewer PRS health and safety hazards and greater compliance with MEES (NAO, 2021), suggesting that if resourced sufficiently, local authorities could be effective in enforcing DHS2. Organisations such as Home Improvement Agencies (HIAs) could also complement the inspections regime by providing support on remediation and home improvement, although this would require an expansion in their remit (Preece et al., 2021; see section 5.B.). Proposed regulatory interventions - such as licensing or property MOTs - should be at least cost-neutral for local authorities, for instance via tax

deductible charges to landlords, so as not to burden authorities with a responsibility they cannot resource (Rugg and Rhodes, 2018; RSM, 2019).

Arguably, issues three and four in this section stem from issues five and six. Therefore, there is a strong case for integrating implementation of DHS2 into a wider overhaul of the sector's regulatory regime. A comprehensive strategy is required to simplify the legislative patchwork, clarify what the minimum offer to PRS tenants should be, and to resource local authorities to enforce and implement DHS2. Nevertheless, the PRS is fundamentally different to the social sector given its disparate nature, which creates challenges in establishing a common standard for decency, and leveraging private finance for home improvement.

PRS: lessons for practice

- Stock condition data in the PRS is poor, and local authorities or combined authorities may need to take the lead on improving data quality, but the body conducting surveys needs to have the autonomy to objectively measure decency
- PRS landlords will need extensive support in the details of DHS2 legislation, how decency can be secured, and the associated administrative burden, as they often have poor knowledge of their legislative obligations

PRS: lessons for policymakers

- There is a risk of unintended consequences if DHS2 is layered carelessly onto the existing PRS regulatory framework
- DHS2 should not be reliant upon PRS tenants flagging non-decency due to the power imbalance between tenants and landlords
- DHS2 should be integrated into a strategic overhaul and simplification of PRS legislation, with landlord accreditation, licensing and property MOTs presenting potential interventions
- PRS landlords will have less leverage over neighbourhood and communal improvements than large social landlords, and so policy should consider whether to adopt a common or variable standard across sectors
- Local authorities need sufficient funding and resourcing to enforce decency in the PRS, as they currently struggle to enforce minimum standards

5. DHS and complementary government priorities

5.1 Net Zero

Decarbonising our homes to meet the country's net zero targets is a priority across the housing sector, but the scale of the challenge is perhaps even greater in the North. Energy & Climate Intelligence Unit (ECIU) analysis found the northern regions have the highest proportion of homes below national EPC targets, and the highest proportion of households in fuel poverty (cited in Mawhood et al., 2022). DHS1 involved improvements in thermal comfort, with the average SAP rating in the social sector increasing from 51.9 in 2001 to 57.8 in 2007 (NAO, 2010). However, the thermal comfort threshold in DHS1 has been criticised for being poorly defined (CLG, 2010). And the decarbonisation of England's housing stock is largely being driven by the Department for Business, Energy and Industrial Strategy (BEIS), including the aforementioned Social Housing Decarbonisation Fund. Even in the absence of explicit net zero commitments in DHS2, the renewed Standard will inevitably overlap with decarbonisation. Home security improvements and window restrictors may necessitate work to the fabric of homes, thermostatic mixer valves will mean interacting with heating systems, and ventilation will be a key issue in managing warmer homes. Moreover, there will be a significant number of non-decent homes also earmarked for decarbonisation works, such as those currently failing the thermal comfort criterion. This section considers the merits of integrating DHS2 with retrofit.

The nature of the works involved in retrofit and the proposed DHS2 could present similar issues in terms of getting resident buy-in, and some of the evidence considered in this review suggests that treating DHS2 and retrofit as an integrated programme may be mutually beneficial for both objectives in terms of getting resident support. Energy efficiency works such as insulation are often seen by residents as highly disruptive and for less gain than other renovations (UKGBC, 2021). And there is some reluctance among households to replace gas boilers with heat pumps, as the running costs of the latter may be higher and could exacerbate fuel poverty (Savills, 2021; NHC, 2021). In a similar vein, the evidence suggests that under DHS1 residents were keen to receive new kitchens and bathrooms, but other components - such as electrical rewires - were a harder sell (BRE, 2021). Because levels of non-decency in the social sector are lower than in the 2000s, the kitchens and bathrooms carrot is likely to be smaller for a putative DHS2 programme. As such, there are overlapping concerns relating to resident demand for necessary measures such as retrofit and electrical safety upgrades.

Given these overlapping concerns, Hall and Caldecott (2016) recommend rebranding energy efficiency programmes as 'home improvement programmes', citing consumer research that suggests households are more willing to accept energy efficiency works if they are part of a wider modernisation programme. Energy Saving Trust (2015) found that the majority of homeowners and landlords were willing to stretch their budgets to incorporate energy efficiency works when they were already undertaking home improvements. In the social housing sector, NHC convened a Climate Jury of residents on retrofit (2021). The Jury reported that they wanted social landlords to move faster on tackling climate change, but of utmost importance was that the works were conducted to a high standard, communicated

clearly with a single point of contact, and with efforts to manage disruption and the number of visits (ibid.). Roundtables of social housing residents also reported that they wanted to avoid a piecemeal approach to retrofit, which could risk damaging the fabric of the building on later visits or introducing mould via cold bridging issues (Bryson, 2021; Savills, 2021; EST, 2015). Taken together, these insights suggest that DHS2 and retrofit could be combined into a wider programme of home improvement or modernisation; for example, the logic of modernising a building's fabric while also improving the security of doors and windows may be more intuitively appealing than doing so in isolation. Furthermore, the goodwill and trust of residents may be stretched if there are multiple programmes, meaning multiple points of contact, and a lack of coordination.

However, some of our interviewees often described the Social Housing Decarbonisation Fund as insufficient for deep retrofit, and explained that its separation from DHS is causing retrofit to be delivered largely in isolation from planned maintenance, with the latter deprioritised as a result. Separate programmes may be feasible in certain contexts, but the overall rigidity is compounding existing issues on the path to net zero, namely overall cost, the supply chain for new technologies and retrofitting hard-to-treat properties. It is also inhibiting a whole-house approach to retrofit where it is necessary.

The primary challenge in decarbonising our housing stock is the exorbitant cost to reach net zero, with unanimity in the literature and interviews that it would be impossible to achieve in the absence of government subsidy (Webb et al., 2020; Savills, 2021; Potton and Hinson, 2020; Washan et al., 2014). Savills (2021) estimate that the cost in the housing association sector alone will be between £35.8 billion and £58.3 billion, depending on the extensiveness of retrofit. The scale of this investment would make housing association stock portfolios unviable, meaning their housing could not be used as security to raise private finance (ibid.). One estimate of the cost to achieve net zero in the social sector, above normal investment, is £20,000 per home (CIH and Orbit, 2021). These estimates may help explain why previous government interventions have struggled to make sufficient progress. The Welsh Government implemented the Nest scheme, which aimed to tackle energy efficiency and fuel poverty in privately owned housing through a whole-house approach. Their evaluation found that caps on government grants - £8,000 for on-grid homes, and £12,000 for off-grid - inhibited the implementation of a whole house approach, with most homes receiving only a single installation measure (Marrin et al., 2015).

Funding schemes suggested in the literature included various combinations of:

- central government grant, including grant for area-based schemes to allow for on-boarding PRS households (Webb et al., 2020; Preece et al., 2021);
- government guarantees for borrowing (Savills, 2021);
- improving reporting and clarifying accounting standards on environmental, social and governance (ESG) factors to reduce the cost of borrowing (ibid.);
- warm rents i.e. increased rents offset by tenant savings in energy bills (ibid.);
- provision of low-cost government loans, or the development of financial products such as equity loans or equity release, to finance improvements in the PRS (Preece et al., 2021); and
- the establishment of not-for-profit intermediary lending agencies to pool resources and secure preferential borrowing terms (ibid.).

The insufficiency of funding is intertwined with the issue of nascent supply chains for many retrofit technologies. The most common installation to meet the *thermal comfort* criterion of DHS1 was an A-C energy efficiency rated gas boiler (DCLG, 2006), but these heating installations will need replacing to decarbonise our homes. A number of new heating technologies are still in their infancy, and our interviews highlighted that many landlords are beginning with a fabric first approach to decarbonisation due to the immaturity of the heat pump supply chain. As highlighted in section 2.2., government could support supply chain development through long-term funding, outlining a clear technology pathway for low-carbon heating, catalysing local skills strategies via devolved institutions and raising awareness of retrofit skills accreditation schemes (Webb et al., 2020; Johns and Longlands, 2020).

Beyond funding and the supply chain, there are technical challenges that make properties *hard-to-treat*. The following obstacles appeared during DHS1 in meeting the thermal comfort criterion, and continue to hinder progress towards net zero:

- not all homes are suitable for cavity wall insulation e.g. those with a small cavity
- solid wall insulation can be expensive and create cold bridging issues if applied poorly; external insulation is often unsuitable for conservation areas, and internal insulation is often unpopular as it is disruptive and reduces floor space
- legal problems can exist in blocks with a high number of leaseholders
- non-traditional, system-built homes were especially challenging; landlords required technical guidance on the most suitable form of wall insulation, which was not always available, and often created cold bridging problems (Hulme, 2012).

The experience of hard-to-treat properties reminds us that properties are at different starting points on their journey to decency and net zero, and so landlords will require some flexibility to determine the most cost-effective approach in different contexts, including whether to pursue a whole-house or component-led approach. Regardless, our evidence base provides two clear messages. A) The net zero transition in housing needs to be happening faster and there is some evidence that integrating DHS2 and retrofit programmes could help in this regard due to the ‘sell’ of modernising the home and the need to make maximum use of each home visit. And B) that where it makes sense for landlords to pursue a whole house approach, the policy and funding environment needs to be conducive to this, otherwise it will erect unnecessary barriers to both DHS and net zero. A starting point would be learning the lessons from DHS1 regarding the benefits of long-term funding, while also allowing landlords to combine funding pots and supporting them to leverage private finance.

5.2 Health and social care

The literature on the effect of housing improvement on health suggests that it can have positive effects on both physical and mental health, including reduced harms from excess cold, improved respiratory health, and improved attitudes to the home and social relationships (Gibb et al., 2020). Controlled trial evidence suggests improved thermal comfort and insulation is associated with reduced admissions to hospitals and general practitioners, as well as improved workplace and school attendance (Howden-Chapman et al., 2007). These improvements and outcomes were all within scope of DHS1. Indeed, qualitative studies assessing DHS1 found residents reported a renewed sense of the house

as a ‘home’, that their homes felt warmer and safer, and that they were more likely to engage in healthy behaviours, such as stopping smoking indoors so as not to taint the new kitchens, and having friends visit (Walshaw, 2011; Walshaw, 2012; Sowden and White, 2014).

A number of housing providers commissioned universities to conduct health impact assessments of their DHS1 programmes. Jones et al. (2016) evaluated the health impact of NCH’s DHS1 programme, who owned 28,300 homes in Nottingham. They estimated that NCH’s programme potentially prevented two deaths from excess cold annually, prevented 144 accidents from hazard reduction annually, improved the mental health of over 1,400 residents from reductions in excess cold and fuel poverty, and improved the respiratory health of over 1,000 children. Gilbertson et al. conducted impact assessments of the DHS programmes in Sheffield (2006) and Ealing (2008). They estimated that DHS1 would result in modest health benefits from thermal comfort and reductions in falls and accidents. However, they estimated the largest health impact, by a substantial margin, would be from improved security via installation of secure by design windows and doors. The impact assessments suggested improved security would benefit health via increased subjective wellbeing, reduced fear of crime, and reduced stress and anxiety. Further, they cited research that found secure by design installations to individual properties had a larger effect on crime reduction - and therefore mental health - than more indirect interventions such as neighbourhood redesign (ibid.).

The surprising health impact of security was mostly because improvements were relatively low cost and benefited a large number of residents. And Gilbertson et al’s methodology relied upon the simplifying assumption that crime was not merely displaced to other areas, meaning the impact might be somewhat overstated (ibid.). By contrast, the number of falls and properties below the thermal comfort threshold was already low within the social rented stock, reducing the scope for impact (ibid.). By implication, the health impacts of thermal comfort and hazard reduction may be far greater in the PRS. Regardless, studies also relied upon the assumption that positive health impacts of DHS1 were not in part undermined by the stresses and disruption involved for residents - for example from poor workmanship, the invasiveness of the works or the break up of communities from demolition (Gibb et al., 2020) - which is an important reminder that only through high quality provision will the health impacts of DHS2 be fully realised.

Since DHS1, England’s ageing population has underlined the importance of housing in supporting wellbeing across the lifecourse (Centre for Ageing Better, 2020; Preece et al., 2021). In this vein, accessibility and aids and adaptations were largely seen as a missed opportunity for DHS1 (APPG, 2019). A Select Committee review conducted during DHS1 argued accessibility should be considered in any future Standard (ODPM, 2004). However, the evidence submissions to the Committee tended to advocate a pragmatic approach to enforcement. The Disability Rights Commission proposed that a home should not be classified as ‘decent’ on the basis of an access standard, but if a component is being replaced within the DHS programme, it should be done so to maximise accessibility, for instance by installing accessible window openings (ODPM, 2004). Similarly, Care & Repair England proposed that occupational therapists should vet the specifications of any DHS programme (ibid.).

Ormerod and Thomas (2006) conducted a review of landlord practices under DHS1 in relation to accessibility, and argued that accessibility was too often seen as a 'special needs' function, something to be done as an afterthought when brought to the attention of the landlord. They provided a list of simple steps landlords could take to make accessibility a more mainstream concern in their programmes, including:

- installing a second hand rail on stairways where possible as standard;
- including bottom opening windows within the standard range of window options; and
- informing residents of the impacts on accessibility when making certain choices e.g. how kitchens and bathrooms can be made more accessible to the visually impaired through tonal contrast in colour choices, or the inclusion of matt choices for tiles to reduce glare (ibid.).

Recent pilots in retrofit also highlighted the importance of not undermining accessibility when making the fabric of a home more energy efficient, for instance by making passageways to back gardens inaccessible for wheelchair users when installing external wall insulation (CIH and Orbit, 2021).

Although accessibility was not always a mainstream concern under DHS1, the literature identified some examples of best practice among social landlords. Wakefield and District Housing, Housing Hartlepool and Wolverhampton Homes all found that critical to success was close partnership working with local authorities and engaging occupational therapists early in the process. Early engagement allowed for assessments to be undertaken in advance of refurbishment, and partnership working allowed for budgets to be pooled to co-fund the installation of accessible bathrooms (Bennington et al., 2010). Poole Housing Partnership even secured a full-time occupational therapist on secondment to work on their DHS programme (ibid.). While Wolverhampton Homes provided respite care for residents where necessary during DHS1, which they co-funded and delivered in partnership with social services (ibid.).

As with other aspects of the proposed DHS2, inclusion of the PRS makes implementation more complex, potentially necessitating coordination by trusted and knowledgeable local bodies. If implementation is successful, the scale of the potential health impact in the PRS is great, given it has lower standards of decency, thermal comfort and health and safety. Some of the literature suggested that much of the necessary infrastructure for accessibility improvements in the private sector already exists - such as occupational therapists, home improvement agencies (HIAs) and their associated handyperson services - but that this infrastructure needed sufficient funding and an expansion of its remit (Hackett, 2018; Preece et al., 2021; APPG, 2019). Preece et al. recommended expanding the role of HIAs, asserting that they could be the "agents of local government" for improving private sector housing, coordinating and implementing local authority strategy, and becoming "a hub or 'one-stop-shop', drawing together information, programmes and funding streams in one place" (2021: 8, 37).

To summarise, there are clear theoretical reasons why DHS1 would have had positive effects on health - thermal comfort, reduced accidents, reduced crime related stress and anxiety - but it is difficult to precisely estimate the size of the impact. There is consensus that

a pressing issue relevant to DHS2 is the inadequacy of the English housing stock for an ageing population. Therefore, making accessibility a mainstream concern of a renewed DHS is seen as a key priority, and so too is an expanded infrastructure for home improvements in the PRS. However, stakeholders have tended to advocate a pragmatic approach to integrating accessibility into DHS programmes, as opposed to making it a strict pass or fail component of the Standard.

5.3 Levelling Up

The Levelling Up White Paper commits the national government to fostering 'local pride and belonging', with targets around satisfaction with local communities and reductions in neighbourhood crime (DLUHC, 2022b). A common complaint with DHS1 was that the Standard stopped at the front door, and numerous reports proposed a future programme include improvements to the wider neighbourhood or communal areas (Walshaw, 2012; Bennington et al., 2010). Expanding the scope of DHS2 to the wider neighbourhood or estate could make DHS2 a key mechanism for achieving stated levelling up ambitions.

Qualitative research and governmental inquiries contemporary to DHS1 suggested that residents typically perceived the 'home' as being broader than the dwelling, and they often valued improvements to the estate, communal areas or gardens as highly as internal improvements (Walshaw, 2011; Walshaw, 2012; Wilson, 2003; ODPM, 2004). This theme was validated in our interviews. One landlord interviewee explained how they had improved footpaths and hard-standings on an estate during DHS1, so that residents no longer had to park their cars on grass verges, and that these environmental improvements were a popular part of the programme. Interviewees also suggested neighbourhood and communal improvements could make hard-to-let properties more appealing.

Indeed, many social landlords did incorporate neighbourhood improvements into DHS1 as part of their local standards (Bennington et al., 2010). A regeneration scheme by Hounslow Homes sought to improve neighbourhood security and social cohesion by redesigning community spaces and amenities, installing secure entry systems, CCTV and external lighting, and demolishing unused garages to build new affordable housing (ibid.).

Neighbourhood improvements could also dovetail with other relevant issues highlighted in this report, for example making entry points to buildings accessible for the elderly and disabled (Ormerod and Thomas, 2006). Or using communal areas as an opportunity to provide green space, improve biodiversity, or implement sustainable drainage solutions - such as rain gardens and green roofs - to manage flood risk (CIH and Orbit, 2021; GLA, 2022). Furthermore, some reports into DHS1 suggested the regenerative potential of the programme was limited if not incorporated into a wider programme of socio-economic renewal (Walshaw, 2012).

Despite the widespread acknowledgement of the importance of neighbourhood improvements, there has been some dispute as to whether DHS is the appropriate instrument for achieving this goal. Firstly, there are the practical difficulties of agreeing to a workable definition of a 'neighbourhood', let alone an agreed minimum standard for a *decent* neighbourhood (CLG, 2010). Landlords have expressed concern that minimum

neighbourhood standards may penalise them for issues outside of their control (ibid.). This latter point is particularly pertinent for DHS2 due to the incorporation of small-scale PRS landlords.

Our interviewees also cautioned against a one size fits all approach to neighbourhood renewal. Instead they often suggested that resident consultation to understand the local context and needs was imperative to successful estate and communal improvements. And the CLG Select Committee (2010) similarly concluded that standards for decent neighbourhoods are most appropriately set locally.

A compromise that balances the importance of neighbourhood investment with the practicalities involved could be to make neighbourhood improvements part of an enhanced Decent Homes Plus, rather than making neighbourhoods a pass or fail component of DHS2. The Standard could emphasise the *process* of renewal, rather than be prescriptive on outcomes. Social landlords and local authorities could be allowed to pool DHS2 and Levelling Up funding, and direct it towards projects that are generated in consultation with residents, or that complement and enhance the overarching programme (e.g. providing green space alongside retrofit, or improved security of communal areas alongside window and door replacements). Such an approach could bring DHS2 more in line with resident expectations, while remaining pragmatic and expanding resident voice.

DHS and complementary government priorities: lessons for practice

- Residents may be more willing to accept energy efficiency works where they are combined with a wider programme of modernisation, which enhances the argument for integrating DHS2 with net zero
- The health impact of DHS is difficult to quantify, but security measures may present a surprisingly impactful and cost-effective intervention (if assumptions around displacement of crime are met)
- Accessibility should be a mainstream consideration for DHS installations, and can be incorporated relatively easily by adding second handrails, providing accessible window openings, and explaining the impact of colour choices on the visually impaired
- Improvements to the estate and communal areas are often as valuable to residents as those within the dwelling, and may help increase demand for hard to let properties
- Resident consultation can help determine priorities for neighbourhood improvements

DHS and complementary government priorities: lessons for practice

- Failure to integrate DHS2 with net zero legislation and funding will make a whole-house approach to retrofit more difficult, creating additional barriers to net zero; plus, deep retrofit will require an increase in long-term government subsidy
- A clear technology pathway for net zero heating from government could provide greater certainty for landlords and the supply chain
- Home Improvement Agencies (HIAs) could have their remit and resources expanded to become a one-stop-shop for home improvement in the PRS
- Neighbourhood improvements can support pride in communities, and may best be implemented via a tiered Decent Homes Plus, with the specific improvements determined locally, as opposed to a pass/fail component of the Standard

6. Conclusion

To conclude we highlight a number of themes that cut across the sections above and will inform implementation of DHS2.

The benefits of a holistic approach to decency in the dwelling, long-term planning, programmes and funding. A recurring theme of the review was the benefits of a holistic, long-term approach to decency in the dwelling. Not only do siloed, short-term funding pots for different programmes create uncertainty in the supply chain, but a piecemeal approach to housing regulation and renovation can produce inefficiencies through complexity. Conflating decency with replacement of singular components can present a false economy as it obscures disrepair backlogs accumulating in neglected areas, and puts pressure on other areas of the business and society (e.g. responsive repairs, ASB). By contrast, much of the evidence suggested long-term programmes and funding provide security of revenue, and support planning and continuous improvement. Landlords will need the flexibility to adopt either a whole-house or component-led approach to delivering DHS2, but this does not negate the importance of a holistic approach to assessing decency. The point is that decency cannot be *reduced* to simply replacing one or two components, it should address all areas of investment necessary in the home, regardless of whether this is done in one or multiple visits.

Resident engagement is key to building momentum around DHS2 and building trust. Resident involvement and engagement will be key to implementing a DHS2 that includes more invasive works such as electrical rewires and solid wall insulation. Resident participation can be embedded at each stage of a programme, from specification and procurement, through to contract management and aftercare. But the nature of resident participation has changed since DHS1, and a variety of mechanisms are required to ensure a breadth of participation opportunities. The messaging concerning the benefits of the programme will also be different under DHS2, with cost savings a potential motivator, and stigmatising terms such as *fuel poverty* to be avoided. Trusted staff members and resident testimonials can help communicate the benefits of the programme. Finally, landlords should take heed of the importance of resident consultation in regeneration projects, in particular in determining local standards, scoping neighbourhood improvements, and developing social value plans.

Combining DHS2 and retrofit to get resident buy-in. The evidence we have considered suggests there are potential benefits to integrating DHS2 with net zero. Residents want their landlords to move faster on net zero, but are worried about disruption and the quality of retrofit work. Similarly, there is reason to believe DHS2 will not be as easy a sell as DHS1, with some works seen as disruptive (e.g. electrical rewires), or less beneficial than new kitchens and bathrooms. Integrating DHS2 with net zero might help get resident buy-in by reducing disruption and by using modernisation of the home as the ‘sell’ for retrofit. It would also reduce duplication and disruption where properties are earmarked for both retrofit and DHS2. Integration could allow for a combined programme with the requisite scale for cost-effective delivery. However, this would need to be supported with long-term government subsidy on a much larger scale than currently available.

The need for localised coordination and collaboration to scale up. One of the benefits of long-term programmes and funding is the support it provides to scaling up delivery, and this can be complemented by localised coordination and collaboration. There were numerous examples of collaboration through procurement consortia, supply chain development and social value in DHS1. But the integration of the PRS into DHS2 makes localised coordination of this collaboration even more critical. Local authorities were identified as trusted bodies who can coordinate local strategies and area-based programmes that on-board the PRS, although past experience attests to the need to resource local authorities sufficiently to enforce minimum standards. Devolved institutions such as combined authorities could also help boost capacity through strategy development, coordinating stakeholders, overseeing shared funding bids, and directing interventions towards filling skills gaps.

The merits of a tiered and staggered approach. Although the evidence suggests that decency should be addressed holistically within dwellings, there is a strong argument for a tiered standard in DHS2 in communal areas and the wider estate. Given the varied control landlords have over issues such as the condition of the wider estate, especially comparing the PRS to the social sector, a Decent Homes Plus could be considered. Decent Homes Plus might not form part of the pass/fail component of the Standard, but could release additional funds for landlords who have consulted on localised standards with residents. Staggering implementation of DHS2 may also help prevent spikes in demand leading to supply chain pressures, and will most likely be necessary to implement DHS2 in the PRS, where standards of decency lag behind other sectors.

The importance of evaluation and gaps in the evidence. One of the themes of the evidence considered in this review is that it is predominantly case studies of individual organisations, illustrative examples volunteered by landlords, and roundtables or interviews with sectoral stakeholders. While such evidence is undoubtedly valuable, and is often rich in detail, it is inherently limited. Not only will there be gaps in the evidence, there is a risk that the *work that is being done* is assumed to be *what works*. There is a lack of evidence that considers relevant comparators or the counterfactual. The current evidence base on DHS1 is often not amenable to causal inference, and publicly available national datasets on landlord performance have been raised as a significant gap in our knowledge of social housing more broadly (Tunstall and Pleace, 2018). High quality evaluations of DHS2 present an opportunity to address the missed opportunities of DHS1.

The necessity of planning for the legacy of DHS2. There was a widespread assumption in DHS1 that a large programme dealing with the legacy of council housing disrepair would reduce the need for a similar programme in the future. That we are now considering DHS2 suggests the legacy of DHS1 did not receive sufficient attention. A more holistic approach to assessing decency and upgrading homes could help safeguard the societal investment in DHS2. So too would making maintenance of the Standard a central component of the strengthened Consumer Standards in social housing regulation, and integrating it into an overhauled PRS regulatory framework. Moreover, DHS should be periodically reviewed to ensure it remains in line with modern lifestyles and expectations.

Urgent improvements are needed to bring our housing up to a modern definition of decency, including improvements in accessibility, health and safety, security and energy efficiency. The overlap between DHS2 and key societal goals relating to net zero, an ageing society and enhancing pride in our neighbourhoods attests to the necessity of investing in our housing.

Bibliography

All-party parliamentary group (APPG) Ageing and older people, (2019). Inquiry into decent and accessible homes for older people Summer 2019. *APPG [online]*. [Accessed 13 July 2022]. Available at: https://www.ageuk.org.uk/globalassets/age-uk/documents/reports-and-publications/appg/appg-for-ageing-and-older-people---report-on-decent-and-accessible-homes-for-older-people.pdf

Audit Commission, (2009). Lofty ambitions The role of councils in reducing domestic CO2 emissions. *Audit Commission [online]*. [Accessed 8 July 2022]. Available at: https://rds.eppingforestdc.gov.uk/documents/s19120/AC%20Natl%20Local%20Govnmnt%20Studies%20App%20III.pdf

Bennington, J., Cole, I., Crisp, R., Eadson, W., Fletcher, D., Flint, J., Gilbertson, J., Green, S., Hickman, P., Pearson, S. and Reeve, K., (2010). Assessment of the Decent Homes Programme: Final Report. *CRESR Research Team*.

Benton, E. and Power, A., (2022). Climate Crisis/Housing Crisis: How can social landlords reconcile safety and energy saving? *LSE CASE Report 139 [online]*. [Accessed 14 June 2022]. Available at: https://sticerd.lse.ac.uk/dps/case/cr/casereport139.pdf

Bryson, J., (2021). Residents' voices in the UK's net zero carbon journey. *Placeshapers and TPAS [online]*. [Accessed 18 July 2022]. Available at: https://www.placeshapers.org/residents-voices-in-net-zero-carbon-journey/#:~:text=Their%20report%2C'%20Residents'%20voices,engagement%20with%20residents%20and%20communities

Building Research Establishment (BRE), (2021). Written Evidence PNZ0055 to Housing, Communities and Local Government Committee Inquiry: Local government and the path to net zero. *UK Parliament Committees [online]*. [Accessed 7 July 2022]. Available at: https://committees.parliament.uk/work/1081/local-government-and-the-path-to-net-zero/publications/written-evidence/?page=3

Centre for Ageing Better, (2020). Home and dry: The need for decent homes in later life. *Centre for Ageing Better [online]*. [Accessed 13 July 2022]. Available at: https://ageing-better.org.uk/sites/default/files/2021-08/Home-and-dry-decent-homes-later-life.pdf

Chartered Institute of Housing (CIH) and Orbit, (2020). Warm homes and a safe environment: How government and the housing sector can work together to tackle climate change. *CIH & Orbit [online]*. [Accessed 19 July 2022]. Available at: https://www.cih.org/media/vq3i5ks5/warm-homes-and-a-safe-environment.pdf

Chartered Institute of Housing (CIH) and Orbit, (2021). Working with customers to make net zero carbon a reality. *CIH [online]*. [Accessed 18 July 2022]. Available at: https://www.cih.org/publications/working-with-customers-to-make-net-zero-carbon-a-reality

Communities and Local Government Committee (CLG), (2010). Beyond Decent Homes: Fourth Report of the Session 2009-10. *House of Commons Communities and Local*

Government Committee [online]. [Accessed 21 July 2022]. Available at: https://publications.parliament.uk/pa/cm200910/cmselect/cmcomloc/60/60i.pdf

Crisp, R., Cole, I., Eadson, W., Ferrari, E., Powell, R. and While, A., (2017). Tackling poverty through housing and planning policy in city regions. *Joseph Rowntree Foundation [online]*. [Accessed 7 July 2022]. Available at: https://www.jrf.org.uk/report/tackling-poverty-through-housing-and-planning-policy-city-regions

Department for Communities and Local Government (DCLG), (2006). A Decent Home: Definition and guidance for implementation June 2006 – Update. *Gov.uk [online]*. [Accessed 29 August 2022]. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/7812/138355.pdf

Department for Levelling Up, Housing & Communities (DLUHC), (2022a). A Fairer Private Rented Sector. *DLUHC [online]*. [Accessed 11 August 2022]. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1083378/A_fairer_private_rented_sector_web_accessible.pdf

Department for Levelling Up, Housing & Communities (DLUHC), (2022b). Levelling Up the United Kingdom. *DLUHC [online]*. [Accessed 10 August 2022]. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1052708/Levelling_up_the_UK_white_paper.pdf

Energy Saving Trust, (2015). Trigger points: a convenient truth Promoting energy efficiency in the home. *Energy Saving Trust [online]*. [Accessed 22 August 2022]. Available at: http://btckstorage.blob.core.windows.net/site621/EST%20GD%20Trigger%20Points%20report%202011%5B1%5D.pdf

English Housing Survey (EHS), (2021). English Housing Survey: Headline Report 2020/21. *Department for Levelling Up, Housing & Communities [online]*. [Accessed 10 Aug 2022]. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1060141/2020-21_EHS_Headline_Report_revised.pdf

Environmental Audit Committee (EAC), (2021). Energy efficiency of existing homes: Government Response to the Committee's Fourth Report of Session 2019–21: First Special Report of Session 2021–22. *House of Commons Environmental Audit Committee [online]*. [Accessed 22 August 2022]. Available at: https://committees.parliament.uk/publications/5810/documents/66321/default/

Fujiwara, D., (2013). The social impact of housing providers. *HACT [online]*. [Accessed 14 July 2022]. Available at: https://hact.org.uk/publications/the-social-impact-of-housing-providers/

Gibb, K., Lawson, L., Williams, J. and McLaughlin, M., (2020). The Impact of Social Housing: Economic, Social, Health and Wellbeing. *UK Collaborative Centre for Housing Evidence &*

HACT [online]. [Accessed 19 July 2022]. Available at: https://www.sfha.co.uk/mediaLibrary/other/english/66627.pdf

Gilbertson, J., Green, G. and Ormandy, D., (2006). Decent Homes Better Health: Sheffield Decent Homes Health Impact Assessment. *Sheffield Hallam University, CRESR [online]*. [Accessed 14 July 2022]. Available at: https://www.shu.ac.uk/centre-regional-economic-social-research/publications/decent-homes-better-health-sheffield-decent-homes-health-impact-assessment

Gilbertson, J., Green, G., Ormandy, D., and Stafford, B., (2008). Decent Homes Better Health: Ealing Homes Health Impact Assessment. *Sheffield Hallam University, CRESR [online]*. [Accessed 14 July 2022]. Available at: https://www.shu.ac.uk/centre-regional-economic-social-research/publications/decent-homes-better-health-ealing-decent-homes-health-impact-assessment

Graham, S., (2006). Growing Up: Questions and challenges to promote successful housing association growth: Report of the Future Shape of the Sector Commission 2006. *Future Shape of the Sector Commission [online]*. [Accessed 29 August 2022]. Available at: https://www.networkhomes.org.uk/media/3159/growing-up-report.pdf

Greater London Authority (GLA), (2018). CNCA grant deliverables report: Mayor of London Energy Leap Project (Energiesprong) – Lessons learned. *Greater London Authority [online]*. [Accessed 10 August 2022]. Available at: http://carbonneutralcities.org/wp-content/uploads/2018/07/CNCA-Energiesprong-Final-Lessons-Report_07.25.18.pdf

Greater London Authority (GLA), (2022). Climate-proofing social housing landscapes. *London.gov.uk [online]*. [Accessed 29 August 2022]. Available at: https://www.london.gov.uk/what-we-do/environment/climate-change/surface-water/climate-proofing-social-housing-landscapes

Greater Manchester Combined Authority (GMCA) (2022). retrofitGM: Accelerating the renovation of Greater Manchester's buildings. *GMCA [online]*. [Accessed 10 August 2022]. Available at: https://www.greatermanchester-ca.gov.uk/media/6153/retrofitgm.pdf

Hackett, P., (2018). The hidden costs of poor quality housing in the North. *Northern Housing Consortium [online]*. [Accessed 7 July 2022]. Available at: https://www.northern-consortium.org.uk/wp-content/uploads/2018/10/The-Hidden-Costs-of-Poor-Quality-Housing-in-the-North.pdf

HACT, (2016). Social Value and Procurement: A Toolkit for Housing Providers and Contractors. *HACT [online]*. [Accessed 12 July 2022]. Available at: https://hact.org.uk/publications/social-value-and-procurement-a-toolkit-for-housing-providers-and-contractors/

HACT, (2018). Rethinking customer insight: Moving beyond the numbers. *HACT [online]*. [Accessed 10 August 2022]. Available at: https://thinkhouse.org.uk/site/assets/files/1574/hact.pdf

HACT, (2020). Together, we can do more: A roadmap for the future of social value in social housing. *HACT [online]*. [Accessed 8 July 2022]. Available at: https://hact.org.uk/wp-content/uploads/2021/11/HACT_SV_Roadmap_web.pdf

Hall, S. and Caldecott, B., (2016). Better Homes: Incentivising Home Energy Improvements. *Bright Blue [online]*. [Accessed 22 August 2022]. Available at: https://static1.squarespace.com/static/56d9b584f8baf31e9937bd55/t/57c93ae8579fb35c8fbc026e/1472805610761/Better+Homes+-+incentivising+home+energy+improvements+%28FINAL%29.pdf

Hickman, P. and Preece, J., (2019). Understanding social housing landlords' approaches to tenant participation: Scoping study. *UK Collaborative Centre for Housing Evidence [online]*. [Accessed 12 July 2022]. Available at: https://housingevidence.ac.uk/wp-content/uploads/2020/03/Hickman_Preece_TP_Report_v3.pdf

Hill, T. and Murphy, L., (2019). Valuing more than money: Social value and the housing sector. *Institute of Public Policy Research (IPPR) [online]*. [Accessed 15 July 2022]. Available at: https://www.ippr.org/files/2019-11/valuing-more-than-money-nov19.pdf

Hincks, S., Dunning, R., Moore, T., Young, G. and Watkins, C., (2020). A View from the North Understanding Local Authority Housing and Planning Capacity in an Era of Austerity: Main Report. *UK Collaborative Centre for Housing Evidence & Northern Housing Consortium [online]*. [Accessed 29 August 2022]. Available at: https://www.northern-consortium.org.uk/wp-content/uploads/2020/02/A-view-from-the-North-Main-Report.pdf

Homes England, (2022). Homes England Annual Report and Financial Statements 2021/22. *Homes England [online].* [Accessed 29 August 2022]. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1092351/Homes_England_Annual_Report_and_Financial_Statements_2021-22.pdf

Housing, Communities and Local Government Committee (HCLG), (2021). Local government and the path to net zero: Fifth Report of Session 2021–22. *House of Commons Housing, Communities and Local Government Committee [online]*. [Accessed 19 July 2022]. Available at: https://committees.parliament.uk/publications/7690/documents/80183/default/

Howden-Chapman, P., Matheson, A., Crane, J., Viggers, H., Cunningham, M., Blakely, T., Cunningham, C., Woodward, A., Saville-Smith, K., O'Dea, D., Kennedy, M., Baker, M., Waipara, N., Chapman, R. and Davie, G., (2007). Effect of insulating existing houses on health inequality: cluster randomised study in the community. *British Medical Journal.* DOI:10.1136/bmj.39070.573032.80

Hulme, J., (2012). Chapter 6: England: Lessons from delivering Decent Homes and affordable warmth. In: N. Nieboer, S. Tsenkova, V. Gruis and A. van Hal, ed. *Energy Efficiency in Housing Management: Policies and Practice in Eleven Countries*. Abingdon, Oxon; New York: Routledge. Pp.97-114.

Johns., M. and Longlands, S., (2020). Northern Powerhomes: A Green Recovery Plan to Decarbonise Homes in the North. *Institute of Public Policy Research (IPPR) [online]*.

[Accessed 7 July 2022]. Available at: https://www.ippr.org/files/2020-11/decarbonising-housing-nov-20.pdf

Jones, A. and Valero-Silva, N., (2021). Social impact measurement in social housing: a theory-based investigation into the context, mechanisms and outcomes of implementation. *Qualitative Research in Accounting and Management*. 18 (3), pp. 361-389. DOI: 10.1108/QRAM-01-2019-0023

Jones, A., Valero-Silva, N. and Lucas, D., (2016). The effects of 'Secure Warm Modern' homes in Nottingham: Decent Homes Impact Study. *Nottingham City Homes [online]*. [Accessed 20 July 2022]. Available at: https://core.ac.uk/download/pdf/42393435.pdf

Kempton, J., (2004). Stock condition data for decent homes: impact of surveyors' judgments. *Structural Survey*. 22(3), 126-130. DOI:10.1108/02630800410549017

Kennedy, M., May, C., and Wibley, M., (2021). Shocks in the supply chain: Understanding issues in housing supply chain. *Chartered Institute of Housing Cymru [online]*. [Accessed 8 July 2022]. Available at: https://www.cih.org/media/4hwfxjg2/shocks-in-the-supply-chain-final-eng.pdf

Manzi, T., Simpson, I. and Bailey, N., (2015). Success, Satisfaction and Scrutiny: The Business Benefits of Involving Residents. *Amicus Horizon and University of Westminster [online]*. [Accessed 15 July 2022]. Available at: https://westminsterresearch.westminster.ac.uk/download/1e6d5b38488a1486851fa15d1ebb19c33b6da58f4eb9c98d650348e9049ec3b0/3011108/AH_final%20report_published_270315.pdf

Marrin, K., Smith, M., Hudson H, Miller, N., Bain, J. and Knight, T., (2015) Evaluation of the Nest energy efficiency scheme. *Welsh Government [online]*. [Accessed 20 July 2022]. Available at: https://gov.wales/sites/default/files/statistics-and-research/2019-07/150310-evaluation-nest-energy-efficiency-scheme-en.pdf

Marsh, A., (2018). Social housing governance: An overview of the issues and evidence. *UK Collaborative Centre for Housing Evidence [online]*. [Accessed 13 July 2022]. Available at: https://housingevidence.ac.uk/wp-content/uploads/2018/10/R0218_SHPWG_03_Governance_Alex_Marsh.pdf

Marsh, A., and Gibb, K., (2019). The private rented sector in the UK An overview of the policy and regulatory landscape. *UK Collaborative Centre for Housing Evidence [online]*. [Accessed 13 July 2022]. Available at: https://housingevidence.ac.uk/wp-content/uploads/2019/07/TDS-Overview-paper_final.pdf

Mawhood, B., Bolton, P. and Adcock, A., (2022). Energy efficiency of homes in the north of England. *House of Commons Library [online]*. [Accessed 8 July 2022]. Available at: https://researchbriefings.files.parliament.uk/documents/CDP-2022-0129/CDP-2022-0129.pdf

Ministry of Housing, Communities and Local Government (MHCLG), (2020). The Charter for Social Housing Residents: Social Housing White Paper. *MHCLG [online]*. [Accessed 11 August 2022]. Available at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/936098/The_charter_for_social_housing_residents_-_social_housing_white_paper.pdf

Morrison, N., (2013). Meeting the Decent Homes Standard: London Housing Associations' Asset Management Strategies. *Urban Studies*. 50(12), 2569-2587. DOI: 10.1177/0042098012474512

National Audit Office (NAO), (2010). The Decent Homes Programme. *National Audit Office [online]*. [Accessed 12 July 2022]. Available at: https://www.nao.org.uk/wp-content/uploads/2010/01/0910212.pdf

National Audit Office (NAO), (2021). Regulation of private renting: Department for Levelling Up, Housing & Communities. *National Audit Office [online]*. [Accessed 18 July 2022]. Available at: https://www.nao.org.uk/wp-content/uploads/2021/09/Regulation-of-private-renting.pdf

National Housing Federation, (2022). Review of Decent Homes Standard accelerated. *Housing.org.uk [online]*. [Accessed 11 August 2022]. Available at: https://www.housing.org.uk/news-and-blogs/news/decent-homes-standard-review-accelerated/

Northern Housing Consortium (NHC), (2021). The Social Housing Tenants' Climate Jury Report. *Northern Housing Consortium [online].* [Accessed 14 July 2022]. Available at: https://www.northern-consortium.org.uk/wp-content/uploads/2021/11/Tenants-Climate-Jury-Report.pdf

Office of the Deputy Prime Minister (ODPM): Housing, Planning, Local Government and the Regions Committee, (2004). Decent Homes: Fifth Report. *House of Commons, ODPM: Housing, Planning, Local Government and the Regions Committee [online]*. [Accessed 19 July 2022]. Available at: https://publications.parliament.uk/pa/cm200304/cmselect/cmodpm/46/46.pdf

Ormerod, M. and Thomas, P., (2006). Implementing Decent Homes Standards: How housing associations are addressing accessibility issues. *Joseph Rowntree Foundation [online]*. [Accessed 13 July 2022]. Available at: https://www.jrf.org.uk/report/decent-homes-standards-and-accessibility

Patalia, R. and Rushton, J., (no date). The Sustainable Refurbishment of High Rise Housing. *Claisse.Info [online]*. [Accessed 7 July 2022]. Available at: http://claisse.info/supplementary%20papers/rahul_full_text.pdf

Potton, E., and Hinson, S., (2020). Housing and Net Zero: Briefing Paper Number 8830. *House of Commons Library [online]*. [Accessed 18 July 2022]. Available at: https://researchbriefings.files.parliament.uk/documents/CBP-8830/CBP-8830.pdf

Powell, R. and Robinson, D., (2019). Housing, Ethnicity and Advanced Marginality in England. In: J. Flint and R. Powell, ed. *Class, Ethnicity and State in the Polarized Metropolis: Putting Wacquant to Work*. Cham: Palgrave Macmillan, 187–212.

Preece, J., (2019). Understanding approaches to tenant participation in social housing: An evidence review. *UK Collaborative Centre for Housing Evidence [online]*. [Accessed 13 July 2022]. Available at: https://housingevidence.ac.uk/wp-content/uploads/2019/07/190725-understanding-approaches-to-tenant-participation-in-SH.pdf

Preece, J., Robinson, D., Gibb, K., and Young, G., (2021). Past, present and future: Housing policy and poor-quality homes. *Centre for Ageing Better & UK Collaborative Centre for Housing Evidence [online]*. [Accessed 20 July 2022]. Available at: https://ageing-better.org.uk/sites/default/files/2021-05/CaCHE-Past-Present-Future-Housing-Policy.pdf

Provan, B., and Power, A., (2019). Estate Regeneration and Social Value: Report to Home Group. *LSE CASE Report 124 [online]*. [Accessed 15 July 2022]. Available at: https://sticerd.lse.ac.uk/dps/case/cr/casereport124.pdf

Public Accounts Committee (PAC), (2010). The Decent Homes Programme: Twenty-first Report of Session 2009–10. *House of Commons Committee of Public Accounts [online]*. [Accessed 12 July 2022]. Available at: https://publications.parliament.uk/pa/cm200910/cmselect/cmpubacc/350/350.pdf

Regulator of Social Housing (RSH), (2021). 2021 Global accounts of private registered providers. *Regulator of Social Housing [online]*. [Accessed 29 August 2022]. Available at: https://www.gov.uk/government/publications/2021-global-accounts-of-private-registered-providers

RSM, (2019). Enforcing The Enhancement of Energy Efficiency Regulations in the English Private Rented Sector. *RSM [online]*. [Accessed 18 July 2022]. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/825485/enforcing-enhancement-energy-efficiency-regulations-English-private-rented-sector.pdf

Rugg, J., and Rhodes, D., (2018). The Evolving Private Rented Sector: Its Contribution and Potential. *University of York [online]*. [Accessed 13 July 2022]. Available at: https://nationwidefoundation.org.uk/wp-content/uploads/2018/09/Private-Rented-Sector-report.pdf

Savills, (2021). Decarbonising the housing association sector: Costs and funding options. *Savills [online]*. [Accessed 18 July 2022]. Available at: https://www.housing.org.uk/globalassets/files/climate-and-sustainability/funding-options-report-final.pdf

Sowden, S., and White, M., (2014). High-rise health: a qualitative study of the effect of social housing improvements on the health and wellbeing of residents in high-rise flats. *The Lancet*. 384(2), S76. DOI: 10.1016/S0140-6736(14)62202-9

Tunstall, R. and Pleace, N., (2018). Social Housing: Evidence Review. Research Report. *University of York [online]*. [Accessed 13 July 2022]. Available at: https://eprints.whiterose.ac.uk/136236/1/MHCLG_Green_Paper_Review.pdf

UK Green Building Council (UKGBC), (2021). Understanding how to motivate whole-house retrofit. *UK Green Building Council [online]*. [Accessed 18 July 2022]. Available at: https://ukgbc.org/wp-content/uploads/2021/02/Understanding-motivations-for-whole-house-retrofit.pdf

Valero-Silva, N. and Jones, A., (2011). An evaluation of the customer satisfaction monitoring system in a decent homes programme. In: C. Egbu and E. C. W. Lou, ed. *Procs 27th Annual ARCOM Conference, 5-7 September 2011, Bristol, UK, Association of Researchers in Construction Management*, 807-817.

Walshaw, A., (2011). From house to home: Residents' perceptions of housing modernisation. *Journal of Urban Regeneration and Renewal*. 4(3), 269-278.

Walshaw, A., (2012). Briefing: Understanding housing modernisation from the bottom up. *Proceedings of the ICE - Urban Design and Planning*. 165. 7-10. DOI: 10.1680/udap.2012.165.1.7

Washan, P., Stenning, J. and Goodman, M., (2014). Building the Future: The economic and fiscal impacts of making homes energy efficient. *Verco and Cambridge Econometrics [online]*. [Accessed 7 July 2022]. Available at: https://www.housingnet.co.uk/pdf/Building-the-Future-Final-report_October-2014_ISSUED.pdf

Webb, J., Emden, J. and Murphy, L., (2020). All hands to the pump: A home improvement plan for England. *Institute of Public Policy Research (IPPR) [online]*. [Accessed 6 July 2022]. Available from: https://www.ippr.org/files/2020-07/all-hands-to-the-pump-july20.pdf

Welsh Government, (2021). Evaluation of the Private Rented Sector Leasing Scheme pilot (summary). *Welsh Government [online]*. [Accessed 8 July 2022]. Available at: https://gov.wales/evaluation-private-rented-sector-leasing-scheme-pilot-summary-html

Wilson, W., (2003). Delivering the Decent Homes Standard: social landlords' options and progress. House of Commons Library Research Paper 03/65. *House of Commons Library [online]*. [Accessed 7 July 2022]. Available at: https://commonslibrary.parliament.uk/research-briefings/rp03-65/

Wilson, W., Barton, C. and Cromarty, H., (2022). The end of 'no fault' section 21 evictions (England). *House of Commons Library [online]*. [Accessed 29 August 2022]. Available at: https://researchbriefings.files.parliament.uk/documents/CBP-8658/CBP-8658.pdf

Wilson, W. and Bellis, A., (2019). The Housing Health and Safety Rating System (HHSRS): Briefing Paper Number 01917. *The House of Commons Library [online]*. [Accessed 12 July 2022]. Available at: https://researchbriefings.files.parliament.uk/documents/SN01917/SN01917.pdf

Zhang, M. L., Galster, G., Manley, D., and Pryce, G., (2021). The effects of social housing regeneration schemes on employment: The case of the Glasgow Stock Transfer. *Urban Studies*. DOI: 10.1177/00420980211047044

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