Upgrading our homes for people and the planet

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1. Why our homes cost the earth

It’s hard to know where to start when it comes to the UK’s housing crisis. There are major supply shortages in London and the South East. There are houses standing empty due to under-investment in Scotland, Northern Ireland and the north of England at the same time as these areas are also afflicted by shortages. Huge numbers of homes are in disrepair all over the UK. Poor maintenance and insulation has led to UK homes being some of the most expensive to heat in Europe – driving up fuel poverty. House prices in UK cities are outpacing wage growth by 11%, making homes unaffordable even with low interest rates. Richer, older residents live alone in multiple-bedroomed properties, while less affluent inner-city residents face overcrowding. There are major barriers to accessing credit for purchasing houses in the first place. Several million properties are located in areas at risk of flooding. There are serious risks of overheating, especially in social housing. Oh, and over a third of the homes EPC band C or above by 2035. That means rolling out a national programme of double glazing, loft insulation, wall insulation, boiler replacement and improved heating efficiency schemes for basically all our homes. Sounds good in principle, hey? Well yeah, apart from the fact that public spending on efficiency measures has been more than halved in recent years. It’s now roughly £700m a year. This won’t even be enough to meet the efficiency target for fuel poor homes – let alone helping others in social housing, rented and owner-occupied households too. Targets only mean something if they can actually be delivered on.

As another example, back in 2015, there was a half-decent policy on the horizon to try and improve standards for new homes: the proposed Zero Carbon Home standard. It would have been instrumental in tackling emissions, improving insulation so people would be able to use their heating more efficiently – and therefore help slash fuel bills. However, it was scrapped at the very last minute because George Osborne and David Cameron were intent on ‘cutting the green crap.’ Even the business community were on board with the policy at that point. It’s pretty hard to explain why the government did this – apart from pure stupidity. Perhaps there was a spot of behind-scenes lobbying by some nasty house-builders (see more below).

When it comes to existing, rather than new-build homes, the UK government has set some reasonable – though far from ambitious enough – targets to improve energy efficiency. It has committed to making all homes EPC band C or above by 2035. That means rolling out a national programme of double glazing, loft insulation, wall insulation, boiler replacement and improved heating efficiency schemes for basically all our homes. Sounds good in principle, hey? Well yeah, apart from the fact that public spending on efficiency measures has been more than halved in recent years. It’s now roughly £700m a year. This won’t even be enough to meet the efficiency target for fuel poor homes – let alone helping others in social housing, rented and owner-occupied households too. Targets only mean something if they can actually be delivered on.

And a final note on government - in this case, Westminster government - incompetence, for now. As the housing supply crisis and climate change weren’t enough to deal with on their own, the government decided to introduce a policy that neatly brought the two together for us! A Greenpeace investigation in 2015 found that nearly half the areas earmarked for fast-tracked housing development on brownfield sites are at significant risk of flooding. Key areas included zones along the River Ouse in Yorkshire, Hinkley in Somerset, and Wakefield – all of which have suffered severe flooding in recent years. Homes built in such areas are potentially uninsurable, exacerbating households’ precariousness.

But it would be a mistake to point all the blame at government without also acknowledging the incredibly damaging role of big house-builders (see more below).
like Persimmon, Taylor Wimpey and Barratt Homes are creaming off huge profits – largely siphoned from the Government’s Help to Buy programme – while building substandard homes for rip-off prices.

Many probably remember that cringe moment last October when former Persimmon CEO Jeff Fairburn walked off camera, with nothing to say, during an interview where he was asked about his £75 million bonus. Yes, you read that correctly: £75 million. Even that was reduced from £110m after shareholders revolted. Fairburn said he’d give most of that sum to charity – but it was revealed last December that he has not done anything of the sort. Suffice to say, Fairburn was sacked pretty swiftly last year.

Things have hardly improved with Persimmon since. Their new chief exec was still paid almost £25 million last year. Business Committee Chair Rachel Reeves has recently described Persimmon’s executive rewards as “a tale of corporate greed and incompetent pay management, financed on the back of a taxpayer-funded housing scheme.” The company has now even admitted on record that it helped block the new zero carbon home building regulations in 2015, as mentioned above. It’s hard to think how much lower they could sink.

Enough is enough. Rather than fairly and sustainably delivering the homes we need, these big house builders are controlling supply and simply acting as land speculators. It is time for their behaviour to be seriously regulated, and for government to take an active role in leading us out of this crisis.

Properly fund and implement a UK-wide green economic strategy – increasing investment and development in every region beyond the South East

Redressing the imbalance in public transport infrastructure / regional connectivity is just one example. This must extend to every sector and be aligned with the requirement to limit global warming to no more than 1.5 degrees.

This isn’t unicorn thinking; mainstream experts are increasingly in agreement. In May 2019, Sir John Armitt, Chair of the National Infrastructure Commission, reiterated his call to Philip Hammond to significantly increase spending this autumn to transform the UK’s entire transport, energy and technology networks. He placed particular emphasis on extending ultrafast broadband to every community – including the most rural and remote, dramatically ramping up renewable electricity generation (with the potential to create thousands of decent jobs if properly supported, unionised and regulated), and boosting powers and funding for city leaders to improve local provisions – including housing.

Proponents of a transatlantic Green New Deal are calling for 5% of the EU’s GDP to be invested in green infrastructure, industry and agriculture, and redressing the resource extraction inequality between Europe and the global south.

Fundamentally boosting good quality, secure jobs and incomes through investment and expansion in new green infrastructure and skills across the UK would go a long way in helping address regional housing supply and demand, quality and affordability issues.

2 — Build top quality new homes – at no extra cost to the public

The government’s advisory Climate Change Committee has made it clear that current building standards for new homes are not strong enough to equip us for a changing climate, future-proof homes for low-carbon heating and deliver high levels of energy efficiency. At the same time, the UK government has set itself targets to build millions of new homes in the next few years. If the new houses are built to a rubbish standard, we will continue to lock in high carbon emissions and high bills, exacerbating fuel poverty and climate change. If we can’t get new houses right from the start, we are just making the problem bigger.
Action needs to be taken now – and that means immediately introducing tight regulations for new homes that go beyond the zero carbon homes standard in 2015 that never came to pass. Not only does that mean extensive insulation, upgrading of home heating and good ventilation systems; it also means installing solar power on every suitable rooftop.

A common objection to this idea comes from big house-builders, who say that it will cost them more money to construct the higher quality homes – and that these costs will be passed on to the buyers.

This is actually a myth. The estimated cost of implementing a zero carbon homes standard is below £5,000 for a semi-detached house and under £3,000 for an apartment block. These costs would actually be reflected in reducing the land value where the properties are located, rather than being pushed onto the public. This is because house prices are determined by what the population can pay, and land prices are flexible/variable according to what house-builders can afford. Thus, mandatory building standards would end up reducing land prices, since construction costs required in relation to the land, once having accounted for additional construction costs required in relation to the regulations.

3—Extensively insulate and solarise existing homes – with financial support from the government

Going back to the government target mentioned earlier to increase the efficiency of all properties to EPC band C by 2035, it’s clear that much more cash is now required to actually make it happen. At least an extra £1bn of public money is required every year up to 2035 to meet the goal, on top of the £700m that is already committed. This money must focus on delivering improvements for fuel poor households and those in social housing first, and thereafter help leverage private funds (around £3.5bn) for homes that are privately owned or rented.

The EPC band C target also really is the bare minimum. The target itself should be strengthened as soon as possible to require delivery against band B or A where possible – particularly for the poorest households. Additional central government funding would also be needed for this.

On top of all of this, further capital funding is required from government, to the tune of around £300m, to support innovation in new technologies and materials to help improve standards of home retrofitting and reduce overall costs over time. Some examples of new technologies and approaches that should be supported include Energiesprong and Passivhaus. Energiesprong uses a variety of measures such as external insulation and airtightness along with solar PV and heat pumps, taking a whole house approach, which maintains external aesthetics but slashes energy bills.

All of these home retrofitting measures are self-evidently beneficial from a climate change and energy bills perspective – because they require less fossil fuel heating to be used in the first place. In fact, polling in 2018 suggested that 76% of UK adults are in support of incentives being offered to home-owners to insulate their properties. Further, these measures bring the potential for major job creation across the UK. The scale of home upgrades we’re talking about here is absolutely huge, and will require skilled workers going door to door throughout communities, delivering improvements to every single house. Modest estimates suggest at least 70,000 new jobs could be created by 2030, most of them in services and some in the construction sector and manufacturing supply chains, through delivering on the EPC C retrofit target alone. However, this doesn’t factor in the UK’s specialism in design and architecture of green buildings, which will be increasingly in demand across the world as every country decarbonises on a deeper level.

4—Green our heating systems

Alongside home efficiency and insulation measures, we need to make sure the fuel supplies for our heating systems are clean. At present, over 80% of home heating systems are dependent on gas, which obviously has to change as we need to keep fossil fuels in the ground.

This isn’t an easy job – but it’s been made harder by the fact that the government has dragged its feet in developing solutions, despite knowing for years that this is a challenge that needs addressing. We’ve seen one good policy so far, with the UK government’s latest announcement that for new homes fossil fuel heating, including gas boilers, needs to be banned from 2025. But this obviously doesn’t address the biggest hurdle, existing homes, and on that front almost nothing has happened yet.

We need to support the development, trials and cost-reduction of new technologies on a large scale across the UK. We need to scale up known solutions (such as heat pumps for buildings that are off the gas grid and district heating), trial at scale promising technologies (hydrogen and hybrid systems), and support research and development for new alternatives. That means overseeing a large programme of ‘action research’ to determine the best solutions. Local authorities and other public bodies must have the powers and capacities to be able to evaluate which solutions work and which don’t for different local areas, particularly given technological uncertainties and changes, and the importance of local consent for different solutions.

District heating is an option in denser urban areas (e.g. geothermal heat). It is currently often deployed using gas, but will need to transition to zero carbon fuels in the next two decades.

All of this is probably going to cost at least £2.3bn in additional public money, alongside the £1bn from the Renewable Heat Incentive (RHI) programme. Estimates suggest this would leverage an additional £2.5bn of private contributions, delivering an annual investment of £5.8bn into low carbon heating. The government should also make adequate investments into large scale hydrogen heat trials, produced from sustainable sources, from 2021.

5—Give local authorities more powers and teeth

A transition to a low carbon future that doesn’t have fairness embedded in it is far less likely to succeed, and will have much less legitimacy. It is also undesirable in and of itself. Yet it is not a given that a rapid climate transition will lead to the creation of high volumes of decent, secure new work here in the UK. A proactive and well-funded strategy is required, led by central Government, working in collaboration with empowered local authorities, unions and other relevant stakeholders, so that the green transformation is one in which UK communities feel engaged and can flourish.

When it comes to the home building, efficiency and heating sectors, well-funded and sufficiently empowered local authorities are crucial – both because so many of the solutions are particular to local areas, their geography and demographics, and because the transition away from fossil fuel heating systems will need to be managed carefully, including retraining and reskilling of workers where needed. Support needs to be provided for local authorities to be able to effectively determine how street and area-based solutions to home retrofitting and heating upgrades can be delivered with local consent, and local benefit.

Increased capacity for local enforcement of standards and evaluation of proposed solutions and trials is also vital. One way to do this could be through establishing a Delivery Agency for each of the Westminster and devolved governments to oversee, coordinate and support delivery of a fully decarbonised building stock as soon as possible. A Delivery Agency would establish an inclusive, comprehensive process to involve and orient stakeholders as a national plan is developed, which identifies strategies for different locations and building types, as well as skills development focused on those whose existing skills in fossil fuel heating will be rendered
redundant. It would also act as a centralised compliance and enforcement body to ensure delivery against building efficiency standards in new-build, and projects in existing buildings such as enforcement of regulations in the rental sector. Construction below existing standards is already costing new home owners £70-£260 per year extra on their fuel bills.

Finally, funding urgently needs to be increased and maintained for other government bodies, such as the Environment Agency, which has undergone severe cuts over a sustained period now. The Agency plays a crucial role in advising councils on flood risks – with increased capacity, planning for new housing can be improved and building in areas at risk of flooding can be avoided.

6 — Conclusion

Delivering homes that are fit for people and a changing climate presents huge challenges for the UK, politically and economically. But done well, the potential benefits are also huge, in terms of our quality of life, reduced household costs, job creation and containing global warming. Devolving power to local government, and local consent for a range of solutions is vital. This needs to happen on a scale even greater than that required for the transformation needed in our transport sector. The poor state of our existing building stock and our reliance on gas for heating makes this transition unique to the UK. A starting point is to recognise that the state of housing is a collective issue, as well as a private one, and that the government needs to take a much more vigorous role in managing both one, and that the government needs to take

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