

Getting from green home grants to the Ten Point Plan

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The [Prime Minister's Ten Point Plan](#) for a Green Industrial Revolution is a combination of a post-covid recovery package while simultaneously confronting that other great global challenge; decarbonisation. The greening of our homes and public buildings is a prominent inclusion in the plan with the eye-catching goal of 600,000 heat pump installations a year by 2028. This Insight investigates how a credible set of policies may deliver on this ambition.

Green Homes Grants as a springboard?

The immediate future sees a year's extension to the Green Homes Grants (GHG) scheme as well as £1 billion of additional funding for making new and existing homes, as well as public buildings, more energy efficient. The GHG scheme was a rapidly deployed funding mechanism established in September 2020 to support retrofit activity in both low income and the "able-to-pay" residential sectors.

From the consumers' perspective the GHG scheme is relatively straightforward in concept. Using a [dedicated website](#) consumers can check which measures may be suitable, gain quotes from accredited suppliers, and then apply for a voucher for redeeming by the selected contractor.

Major difficulties have, however, arisen on the supply side. Accreditation has proven a significant barrier, criticised for being costly and cumbersome. This has led to a dearth of providers local to applicants and substantial unmet demand. The extension of the scheme by a year is presumably aimed in part at tackling this issue given the previously unrealistic deadline for works to be completed by March 2021.

Beyond these immediate concerns, however, lie the crucial issues of whether the GHG scheme provides

the right model, or even the right springboard, from which the wholesale retrofit of the UK's housing stock can commence in earnest. Without a plan for its evolution or succession, the sector risks re-treading the well-worn path of a subsidy-fuelled boom period preceding instant famine once the subsidy window ends.

To address this there are two key elements when considering the next steps for policy – sourcing the capital expenditure for delivering the necessary volumes (600,000 heat pumps at an average cost of £8,000 per installation is close to £5 billion a year), and ensuring it is spent in a cost-efficient manner. The remainder of this Insight explores policy options to ensure these criteria are met.

Balancing cost-efficiency and scheme complexity

"[Fabric first](#)" – insulating homes prior to installing a heat pump - is an established energy efficiency principle that is not respected by the current design of the GHG scheme. Heat pumps are designated as a "primary measure" and thus eligible to receive subsidy on a stand-alone basis. Yet installing heat pumps in poorly insulated homes results in over sizing and inefficient operation. With electricity unit costs higher than gas, such a project may result in a net increase for consumer energy bills with serious repercussions for fuel poor households.

The potential for poorly considered retrofits extends beyond fabric first. Ensuring ventilation is properly considered in conjunction with insulating homes demands a whole-house approach to avoid damaging repercussions. Such a comprehensive approach requires considering all these elements in conjunction, often termed a "deep retrofit". Keeping advice simple should ideally not compromise this objective.

Deep retrofits are also expensive, costing £25,000 and upwards for a typical UK home. While undertaking works in one go may be optimal, even with subsidy the upfront consumer investment will be extremely challenging for many households. It also presents a problem for policy. Assuming the share of costs needed to incentivise action remains similar to subsidy levels for individual measures, a given amount of funds will be spent on a much more concentrated number of recipients, raising issues of equity.

[Building Renovation Passports](#) as foreseen by the Building Performance Institute Europe (BPIE) are one option that can be leveraged by offering a tailored roadmap for the step-by-step retrofit of a specific building while adhering to a cost-optimal final vision. Allowing subsidy to be used for developing these bespoke plans (which can cost around £500) to improve the quality of decision making will likely prove cost-efficient in the long-run.

Finding the funds

Which brings us to the elephant in the room: the sheer level of overall funding required. The entire Ten Point Plan commits to a cumulative total of £12 billion government spending by 2030, hoping to leverage over three times as much again in private sector expenditure. As part of its own Manifesto for the 2019 election, Labour foresaw a total spend of [£250 billion by 2030 just](#) to retrofit 27 million homes

Grant financing such expenditure on the basis of the GHG would require a scheme orders of magnitude larger than any similar effort undertaken to date internationally. Indeed, it bears comparison to the £200 billion plus spent so far on tackling the Covid-19 crisis. Aside from the public debt that would be involved, issues of equity and efficiency will arise.

Point Ten of the Ten Point Plan is a £1 billion innovation fund and new green finance. There have been [reports](#) the UK Government is considering a new Green Investment Bank 2.0 but no confirmation has been forthcoming and what products it may offer is unknown. In Germany, KfW finances on-lending by commercial banks of low-interest loans, tied with grant offers, for major home retrofits. The terms of the deal become more attractive the deeper the retrofit. The scheme is perceived to have been largely successful but still falls far short of the scale proposed in the Ten Point Plan, while remaining dependent on ability of consumers to

both contribute financially and meet creditworthiness criteria.

Loans also bring up memories of the Green Deal which does not hold good memories for policy-makers or industry. However, the concept of on-bill financing demonstrates an important and oft forgotten truth – that there is value in energy efficiency. It is extracting this value with a business model that efficiently allocates risk that is the challenge. Developments in metering and monitoring technology should help reduce risk in residential energy performance contracts. This in turn may facilitate ESCOs into households including managing supply agreements (or bundled with supply) for a service fee. Zero upfront cost for guaranteed savings is a convincing sell.

However, many energy efficiency improvements are intertwined with general renovation into the building fabric. A significant portion of the value of a full deep retrofit will therefore not be through energy bill savings but through increases in the value of a home. [Green mortgages](#) and [Property Assessed Clean Energy](#) (PACE) loans are better suited than ESCOs for giving this holistic view.

All the above

If the answer to delivering market-wide retrofit of the UK's old and inefficient housing stock were simple then the issue would not remain outstanding. The mix of stakeholder sectors and skills, as well as value propositions, causes significant difficulty for policy design.

The best option appears a mix of all the above. A successor or refined GHG design that supports a long-term vision for each individual home, using bespoke assessments, is needed beyond its current end date of March 2022. This can be complemented by attractive loans from a new Green Investment Bank (on-lent through commercial banks or direct) and provided at scale. Such an institute may also support the development of the residential ESCO and green mortgage markets through commercial financing facilities and guarantee mechanisms. All this can be back-stopped by rising minimum standards and restrictions on inefficient homes.

The Ten Point Plan and GHG alone are entirely insufficient. But they offer the best platform available from which a more complete policy vision can be created. Contrary to the [reported thoughts](#) of an ex-Chief Advisor to the Prime Minister, the 2020s will not be boring for energy efficiency.