



Green Recovery Bonds Funding green homes for all

A report by Colin Hines and Richard Murphy, May 2021

Summary

The aim of this reportⁱ is to propose a novel mechanism for savings that will secure as much funding as possible for the Green New Deal. We suggest that a Green Recovery Bond should be marketed as an individual savings account (ISA) product to tap this market for this purpose.

The product would carry a guaranteed rate of interest. At present, the report recommends 1%. Early redemption would be allowed. This product would behave as if a cash deposit, with a bonus payable depending on the length of investment.

At this rate of return, the Green Recovery Bond would be more attractive than most cash ISAs currently available.

The priority sector for this 'Saving for the Planet' funding is to decarbonise and make energy-efficient the UK's 30 million homes and buildings. It is hoped that it will serve as an exemplar for other countries in the run-up to November's COP 26 climate conference.

This sector is crucial, as it generates significant carbon emissions. Up to 40% of the UK's carbon emissions could be eliminated by concentrating on this one sector.ⁱⁱ This focus will also be politically and socially advantageous since it will generate jobs in every constituency of the UK while improving housing conditions for millions.

The savings mechanism that we propose could also be used to pay for the ~3 million renewable-powered and energy-efficient new homes needed over the next decade.ⁱⁱⁱ

Funding a Green New Deal

While the estimated cost of moving the UK economy to a sustainable basis varies, few estimate that the investment required will be less than £50 billion a year, and many estimate that the sum required might be as much as £100 billion a year. These are sums that vary between 2.5% and 5% of the current UK annual GDP.^{iv} They are also less than the current level of savings within the UK economy, particularly in the post-Covid period.^v It is thought that UK households may have saved up to £200 billion during the pandemic.^{vi}

What this report proposes is that the UK government should seek to reallocate part of the annual savings of UK residents so that instead of these funds being saved either in cash or in more conventional assets like the shares of quoted companies and investment property where little of the saving actually results in additional economic activity, they are instead redirected towards funding the cost of the UK's transition to being a sustainable economy.

Evidence from the Office for National Statistics (ONS) suggests that more than 80% of UK personal wealth is saved in or through tax incentivised arrangements.^{vii} The most popular of these are personal property, personal pension funds, and ISAs. The first of these asset groupings requires considerable investment if it is to be brought to the standard necessary for the UK to have a sustainable economy. The second and third groups provide the potential source of much of the necessary funding, as explained in this report.

What is the Green New Deal?

In environmental terms, the Green New Deal includes decarbonising and relocalising energy and transport systems, dramatically reducing the throughput of raw materials and pollution from the production and use of goods and services, and a shift in agricultural practices and land use such that biodiversity is adequately protected and encouraged to flourish. To encourage such activity countywide will require the provision of fast, national broadband that is as energy efficient as possible, and adequate help to ensure that all sectors of society, particularly those over 65, can successfully use this technology, which is increasingly central to economic and social life.

In social terms, we must ensure adequate funding for, and the maximum decarbonisation of, the provision for physical and mental health, the care sector, education, policing and the justice system, housing, and, to help ensure adequate access to such services, computer literacy. Achieving this environmental and social agenda will also generate millions of training opportunities and jobs, spread throughout every community.

The Green New Deal will create properly paid, secure jobs in every corner of the country. This worker-led 'just transition' will target investment at those that need it most, including communities that have suffered from decades of deindustrialisation and that have been excluded from full participation in the economy. These include women and communities of colour in areas where there are high levels of underemployment and unemployment, and people working in today's high-emission sectors.

Net Zero by 2050 – Step One: Making up to 20,000 Properties a Week Energy Efficient for the Next 30 Years

The official UK government target of net-zero emissions by 2050 is increasingly considered as too little, too late. The Green New Deal Group^{viii} and many others have been calling for this date to be bought forward to around 2030.^{ix} However, for the purposes of this report, we use 2050 as the eventual target date. This would require making up to 20,000 properties a week energy efficient for the next 30 years.^x The vast majority of these will also require their fossil fuel heating systems to be replaced predominately by heat pumps.

As the urgency of the climate crisis becomes ever clearer, ‘action this decade’ is increasingly becoming the central focus and 2030 an ever more crucial target date. This would require the much more ambitious target of making up to 60,000 properties a week energy efficient for the next 30 years.

A Lynchpin Response to the Covid Crisis

There is a real risk that, post-Covid, business will return to normal. This could create a post-Covid-lockdown surge in carbon emissions. This risk has been identified by the government’s Committee on Climate Change (CCC).^{xi} Countering this will require policies to be prioritised that will be publicly and politically popular.

These policies must address the long-term employment crisis in the country and so provide secure long-term jobs, particularly for the young. The CCC’s emphasis on making all homes energy efficient by 2050 has added to the strength of the prioritising of this area. Industry,^{xii} unions,^{xiii} political parties,^{xiv} and think tanks^{xv,xvi} have all reinforced this need to prioritise energy efficiency and decarbonising buildings, an area until recently the Cinderella of mainstream energy policy.

Scale of Energy Efficiency Transformation Required

As UK housing is diverse and relatively inefficient, a range of approaches is needed to achieve net-zero emissions. Building emissions need to fall by roughly 50% of their 2019 levels by 2035 on their way to reaching net zero in 2050 to achieve government targets.^{xvii} There are 19 million homes in the UK (or roughly two-thirds of the total) with needlessly poor levels of energy performance (below a C rating). Up to a quarter of the energy consumed in homes could be saved cost-effectively, with the technical potential for energy use in homes to be cut in half.^{xviii}

Moving on from Low Hanging Fruit

So far, the UK’s main efficiency scheme, the Energy Company Obligation (ECO), and its predecessors, have targeted low-cost measures, such as cavity wall and loft insulation. As

these measures have been installed and the number of households able to benefit from them has decreased, harder-to-treat homes needing more expensive improvements are now the majority.

At present roughly 70% of UK homes with cavity walls have had them insulated. Around 65% of those that might do so have had some loft insulation, but only a few per cent of homes have had solid wall insulation fitted.^{xxix} A third of British homes have solid rather than cavity walls, which are in general more costly to insulate. If this problem was tackled on a large enough scale, then innovations and economies of scale should deliver falling costs.^{xx} What this indicates is a clear need for a massive increase in funding, but the actual level of funding for energy-efficiency measures has been cut by 50% since 2012 and the number of major insulation and efficient heating measures being installed has fallen by 80%.^{xxi} The objective of delivering energy-efficient homes is not being met.

Home Heating – 85% of Homes in the UK Currently Use Gas for Heating and Cooking

More than 20 million households^{xxii} who at present heat their homes with gas will need to have their heating systems replaced to achieve the UK's carbon goals. Most of the replacement systems are likely to be based on heat pumps. The implication is that hundreds of thousands of these new systems are going to be required annually. Although gas boilers will no longer be fitted in new homes in the UK from 2025 after the government announced a 'future homes standard' in 2019, progress on retrofitting existing homes has barely begun.^{xxiii}

Even so, the CCC has noted that for all new buildings to achieve this 2025 target, by 2030, 2.2 million heat pumps will need to be fitted in new dwellings. Given that only 26,000 per year are currently being installed, this will need a programme to ramp up installation so that 1 million heat pumps are fitted in homes each year by 2030.

The CCC has concluded that the government needs to invest more into scaling up markets and supply chains to cover the new installations so that they can service 1.8 million homes and 50% of the non-residential heating market by 2033.^{xxiv}

Heat Pumps – The Huge Unrecognised UK Manufacturing Potential

Given the enormity of the demand that this market will create, the government should be encouraging sectors like steel, whose traditional markets are under threat from both the need to tackle climate change and the likely long-term effects of the Covid-19 pandemic, to consider supplying this secure, decades-long domestic market.

It Takes Two

It is vital to tackle both the energy efficiency of buildings and the eventual replacement of gas heating with electric heating methods since such heating is less costly and more effective if the whole-house energy performance is considered. Significant preparation of the public mood to accept this process of change within their own homes will, however, be required. These improvements in energy efficiency in people's homes ranging from comprehensive insulation to changing the heating and cooking systems will be far more intrusive and complex than changing light bulbs or switching to a greener energy supplier.

There is, however, a potentially encouraging precedent, particularly in terms of changing from fossil fuels to clean electricity. From 1968 till 1976 millions of UK households converted from so-called town gas to the relatively cleaner natural gas. As the energy system was government-owned, this rapid transition was made possible by a centrally coordinated and state-led operation, which aligned the manufacturers of appliances, the fuel itself and its dependent infrastructure, a skilled workforce, consumers, and homes, including a major information campaign.

The conversion exercise was, in the words of Sir Denis Rooke, chairman of British Gas from 1976 until 1989,^{xxv} "perhaps the greatest peacetime operation in the nation's history". This points to the need for the centrality of national and local government's active role in this green homes programme.

One encouraging green straw in the wind of climate awareness came in a recent UK Citizens Assembly report, which showed that 86% of people supported a ban on new gas boilers between 2030 and 2035.^{xxvi}

Salvation of the UK Steel Industry?

Around one million heat pumps being fitted into homes every year for decades to come should be a huge growth opportunity for the UK steel industry. Many of these homes will also want domestic charging points for their electric vehicles. To meet the UK's commitment to phase out new petrol and diesel cars and vans by 2030 will also require 35,000 public electric vehicle charge points to be installed each year until then.^{xxvii}

Put together, these two programmes are not only a source of long-term, skilled jobs in every community, but they should also help save the UK steel industry where the manufacture of heat pumps and chargers should be seen as a priority.

To help propel this shift, the government should make bailouts for, say, the manufacturing^{xxviii} and steel industries^{xxix} conditional on considering serious plans to secure this decades-long domestic market.

Finally, another political advantage of this approach to both generating jobs while tackling climate change is that it will contribute to the much-needed 'levelling up' in poorer parts of the UK.

Number of Jobs Now and in the Future – Expanding the Existing Home Refurbishment Industry

The number of people employed in the existing refurbishment sector is very hard to establish but using ONS data it has been calculated that these trades make up 12% of the entire UK construction industry in terms of personnel, and 30% by value.^{xxx}

The UK currently has over 150,000 people employed in trades relevant to retrofitting buildings.^{xxxi} There is, however, a twin underlying crisis in this sector. The first is the lack of new entrants and the second is a rapidly ageing workforce. While these issues threaten the country's ability to maintain even the current levels of energy efficiency work, they also provide huge opportunities for training and job opportunities for the young, as well as retraining opportunities for those whose jobs are disappearing.^{xxxii} The Energy Efficiency Infrastructure Group (EEIG) estimates that to carry out all of the necessary work needed to dramatically reduce emissions from homes between now and 2030 will require that at least 250,000 more tradespeople be engaged in these processes.

Other research by National Grid has estimated that in addition to the jobs in insulation work required between 2020 and 2030, there will also need to be nearly 120,000 jobs created in the UK's energy sector to increase low-carbon electricity generation by around 50% from sources such as wind or solar power.^{xxxiii}

Over a Million New Green Jobs

There have been several reports proposing that a well-funded programme of investment in green infrastructure, and in energy efficiency in particular, could generate from 500,000 to over a million jobs. For example, a TUC report calculated that a total of just over a million jobs could be created in England and Wales across the next two years by speeding up investment in green infrastructure. They estimated that 439,000 of these jobs would be created directly in the infrastructure projects and that a further 612,000 would be created in supply chains providing the materials, goods, and services required for the projects.^{xxxiv}

The Local Government Association (LGA) has projected that with the correct support from central government and local authorities, the UK could create almost 700,000 new green jobs within a decade, and a further 488,000 through to 2050. About half of these would be in the renewable energy generation sector and a fifth in energy efficiency.^{xxxv}

The New Economics Foundation published a four-year plan to retrofit 8.7 million homes by 2023/2024 which they suggested could create over 500,000 new jobs and reduce household carbon emissions by 21%. This could boost annual economic activity by £28 billion by 2021 and by £36 billion by 2023/2024. It would require public capital investment of an average of £8.66 billion per year for four years, much of it supporting low-income households through grants. They suggested that cumulative government investment of £34.7 billion between 2020/2021 and 2023/2024 could unlock around £72 billion of private capital investment over the same period.^{xxxvi}

Innovation, Skills, and Education Strategies^{xxxvii}

The Grantham Research Institute has found that around 10% of workers in the UK have skills that could be more in demand in the green economy, while a further 10%, particularly in construction, transport, and manufacturing, are likely to need reskilling. Together, this means that about 6 million people could be directly involved in the green economy if provided with suitable training.

The UK government, therefore, needs to develop an ambitious zero-carbon skills strategy, working with industry, unions, schools, and colleges, to tackle any skills gaps that could hinder progress. Examples of required skills include those for designers, builders, and installers of energy-efficient and zero-carbon heating, for which demand will increase sharply. There should also be a major expansion of high-quality and advanced apprenticeships, backed up with new sector-led national colleges. It will also be necessary to ensure that the financial sector has the skills necessary to make the UK the green finance capital of the world.

Beyond this, the education system has a key role in equipping students with the skills and desire to help achieve net zero. For example, giving students sustainability education and ensuring that climate and wider environmental sustainability skills are embedded at all levels of the educational system, in the national curriculum, apprenticeship programmes, higher education, and through lifelong learning and just-in-time skills training. This would include working with professional bodies, business, and qualification agencies to ensure that appropriate climate change and sustainability skills and understanding are central to their qualification requirements.

Schools and further and higher education institutions themselves own or manage large estates, which need to become zero carbon; the process of achieving this aim will itself be an educational opportunity for their students. It will be necessary to make the adoption and delivery of a climate change and sustainability plan a central feature of public funding for education providers, generating the expectation that educational bodies will take action on both how they operate and the content of the curriculum.

This will require ambitious and adequately funded green infrastructure programmes, which will improve conditions for millions in all parts of the country.

Getting There – Buildings Energy Infrastructure Programme

The practicalities of decarbonising all UK properties and making them energy efficient has been detailed by the EEIG, a broad-based coalition of over 25 industry groups, NGOs, charities, and businesses in their comprehensive publication *Rebuilding for Resilience*.^{xxxviii} This shows how the UK could quickly expand existing energy saving capacity and which training programmes and funding mechanisms are required.

At its heart is a comprehensive Buildings Energy Infrastructure Programme. This would be designed to ensure a rapid improvement in energy efficiency policy for around 30 million UK homes and buildings. The UK housing stock is one of the least efficient in Europe,^{xxxix} and so tackling this would provide a credible pathway to net-zero emissions^{xl} as well as ending fuel poverty. The EEIG, therefore, recommends a comprehensive government-led programme that treats energy efficiency as a national infrastructure investment priority.

It sets what it calls “a game changing target” – achieving an Energy Performance Certificate (EPC) rating of C^{xli} for all homes by 2030. This will require clear governance arrangements, robust regulation, a long-term plan, and capital budget and funding mechanisms to achieve it. Comprehensive advice provision, quality assurance, safety standards, and tight management of the projects will be crucial since the programme will involve entering and making changes to millions of people’s homes.

The report finally pulls together all the elements of the proposed energy efficiency stimulus package into a *Rebuilding for Resilience* roadmap that supports longer-term economic recovery.

First Concentrate on the Fuel Poor^{xlii}

The EEIG proposes that the fuel poor should be the first priority for such a programme. The latest available fuel poverty statistics, for 2018, estimate its incidence in England at 10.3%, or 2.4 million households.^{xliii} It is highly likely that this is now increasing as a result of Covid-induced stresses on the economy and the wellbeing of individual households. Improvement in the average energy efficiency of homes in England has been marginal since 2015.

There are significant disparities in the incidence of fuel poverty across the country, to which inefficient homes are the main contributor. Energy-efficiency investment can reduce energy bills and so supporting vulnerable households in or at risk of fuel poverty and end fuel poverty by 2030.

The North-East, West Midlands, North-West, and Yorkshire and the Humber regions of England, and Wales, have the highest per capita energy efficiency investment need. The incidence of fuel poverty is generally highest in rural areas outside of the South and South-East – such as in Cornwall, Cumbria, the East England coast, Lancashire, Lincolnshire, the West Midlands – and in deprived inner-city neighbourhoods including Birmingham, Bradford, Liverpool, Leicester, London, Manchester, Newcastle, and Nottingham.

To achieve this, the EEIG proposes kick-starting local jobs across the country through a programme of public expenditure designed to put the building industry back to work by insulating and heating the homes of disadvantaged households across the UK^{xliv} and in parallel boost investment in social housing through ring-fenced funding designed to bring all social housing up to an EPC rating of C by 2030.

They then require the boosting of standards in the private rented sector to an EPC rating of C by 2030 and this to be backed by a programme of targeted public expenditure. For owner-occupiers, it suggests initiating a distributed programme of public expenditure designed to stimulate the taking of actions to thermally improve their homes to an EPC rating of C by 2030, particularly at the point of sale.

To achieve this, they suggest the creation of an agency designed to drive this work forward and engage and inform consumers about their options. With the power of ‘smart public procurement’ this can drive and maintain standards of work across the programme.

Role of Local Authorities, Mayors, and Community Energy Schemes

Thirty-nine per cent of the UK’s 434 local authorities are actively delivering clean energy transitions. Spread across the country, many have been taking forward local energy efficiency schemes independent of UK and devolved government support. They often work with, and are supported by, expert managing agents. They can form the backbone of coordinating swift and reliable energy efficiency stimulus on the ground, laying the foundations for net-zero compatible recovery.^{xlv}

The Conservative West Midlands mayor Andy Street^{xlvi} and Labour mayors of Greater Manchester Andy Burnham and Liverpool City’s Joe Anderson have called for a programme to retrofit homes with renewable energy technology to reboot the economy and create jobs.^{xlvii}

Community energy schemes have faced significant challenges in recent years, with the sector negatively impacted by reductions in subsidy support and unclear government strategy.^{xlviii} Simple measures such as Social Investment Tax Relief, a low or zero-interest loan facility, a smart export guarantee, and a renewed Feed-in Tariff for community energy

projects could have a rapid impact and make the most of the vibrant social capital community energy groups represent.^{xlix}

Local Authorities and the Remnants of the Green Homes Scheme

In March 2021, the government scrapped its flagship Green Homes Grant scheme for homeowners. Instead, all that remains is an additional £300 million that has been allocated to the local authority delivery part of the scheme, which allows councils to bid for funding to carry out retrofits within low-income households.

The government has said that this will mean that tens of thousands more households on annual incomes of less than £30,000 will have energy efficiency improvements carried out in their homes as a result.ⁱ

In fact, the local authority part of the Green Homes Grant initiative was its only success. The rest of it was judged by a select committee of MPs to be “botched [in] implementation ... the administration seems nothing short of disastrous”.ⁱⁱ

Emulate Scotland, the UK’s Leader in Energy Efficiency

The incredibly ambitious UK-wide programme for energy efficiency called for in this report will, of course, need time to be built up, but it need not start from scratch. The government should look at what is already happening in Scotland. There, its comprehensive energy efficiency programme was designated a National Infrastructure Priority in 2015, addressing as it does the climate emergency, fuel poverty, and the need to increase economic activity everywhere.ⁱⁱⁱ

With around 2.45 million homes in Scotland, all varied in type, use, size, age, construction, and levels of energy efficiency, energy efficiency has been a long-term priority for the Scottish government. By the end of 2021, it will have allocated over £1 billion since 2009 on tackling fuel poverty and improving energy efficiency.ⁱⁱⁱⁱ This is raised through general taxation rather than regressive flat-rate taxes on energy bills. The Energy Saving Trust is a key delivery partner for the Scottish government in addressing energy efficiency.^{liv}

The Scottish government is about to roll out a new 20-year programme called Energy Efficient Scotland, which sets out the path it will take to reduce greenhouse gas emissions and remove poor energy efficiency as a driver for fuel poverty. This is a cross-portfolio initiative that has been spearheaded by the ministers for local government and housing and energy, connectivity, and the highlands.

A Route Map for the Programme^{lv} was developed after a series of consultations and stakeholder events that have shaped the decisions taken. It is hoped that this will help secure investment above £10 billion over the 20-year lifetime of the programme.

Energy Efficiency Retrofits – The Scottish Experience^{lvi}

Scotland (and to a large extent Wales and Northern Ireland) already has in place the infrastructure needed to roll out much-enhanced activity on energy efficiency. It is in England where the delivery infrastructure needs (re)building. Scotland has, for instance, under the 'Warmer Homes Scotland' initiative:

- Warmworks – A taxpayer-funded national programme rolling out insulation and heating to vulnerable households in the owner-occupied and private rented sectors. This includes rigorous standards enforcement across the 29 local contracting firms who carry out the work.
- Area-based, ring-fenced funding for Scottish local authorities to retrofit public sector housing using predominantly local contractors.
- Low-interest loans for owner-occupiers and others to commission their own work.
- An overarching and enforceable target to achieve zero-carbon homes including:
 - A (new) legal obligation on private landlords to significantly improve the energy rating of their property before it can be (re)let.
 - A distributed network of advice centres with a national (Scottish) call centre to access all the programmes.

Wales and Northern Ireland have broadly similar programmes. All of them could ramp up rapidly with new funding from the government in Westminster.

What a Net Zero Green New Deal Programme Costs

The current best estimates of the likely cost of a Green New Deal probably come from the think tank Common Weal,^{lvii} who calculated the likely total cost to Scotland as £170 billion over 25 years. The energy efficiency and energy supply part of this is £144 billion.

The population of Scotland in 2019 was 5.45 million. The UK population of 66.65 million is roughly 12 times the size of Scotland. Extrapolating Common Weal's calculations for the Green New Deal as an entire package suggests the cost for the UK as a whole for an entire Green New Deal may be £170 billion x12; i.e., £2.04 trillion.

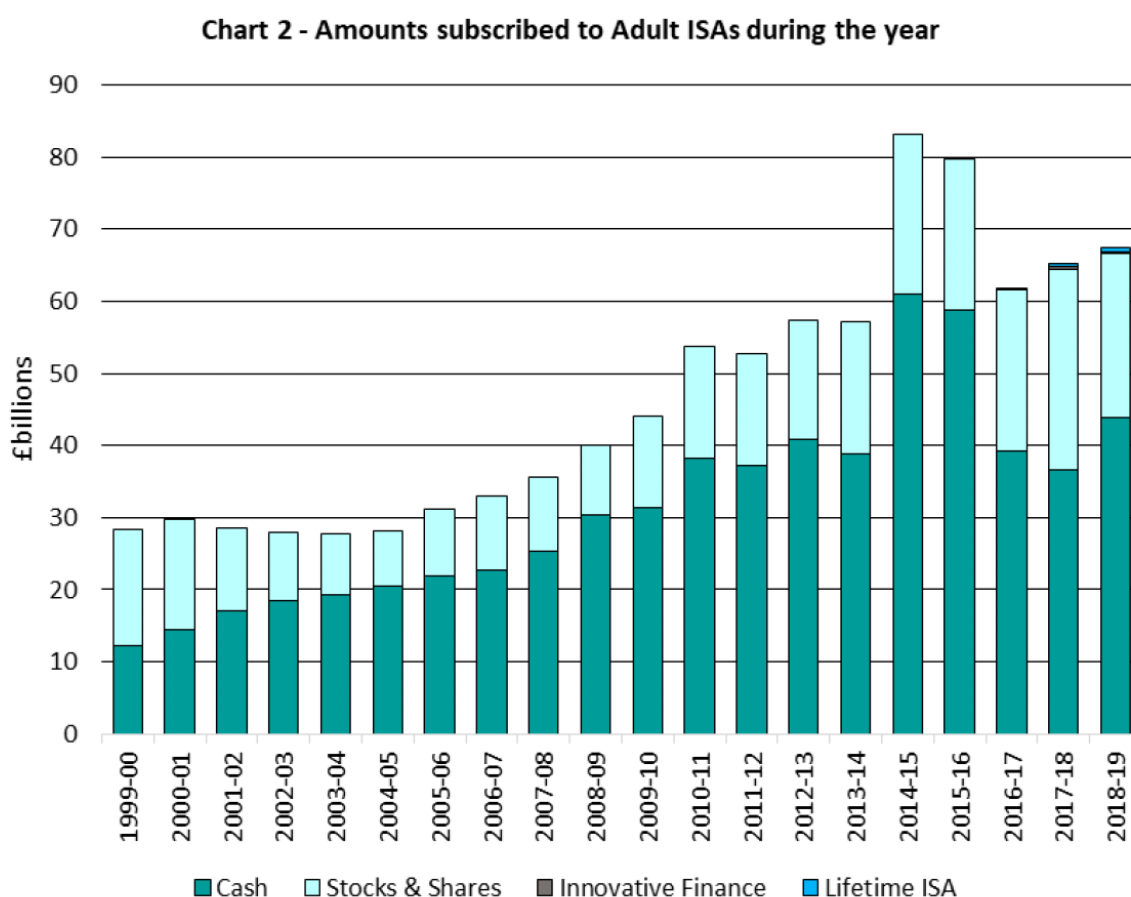
In terms of energy efficiency in buildings, estimates vary of the investment needed to bring the 19 million homes in the UK with needlessly poor levels of energy performance (below a C rating) up to the higher energy efficiency standard of EPC C. The government has provided a preliminary estimate of up to £65 billion, dependent on the number of and degree to which individual homes are practical, cost-effective, and affordable to renovate under different assumptions. The EEIG's estimate of over £80 billion was calculated using similar constraints, but less restrictively, for example by considering the aggregate cost-

effectiveness of achieving an EPC C rating across the housing stock, rather than on a case-by-case basis. Job estimates will vary corresponding to the level of investment and nature of work required.^{lviii}

Our Proposal for Funding the Green New Deal

We propose using Green Recovery Bonds issued through ISAs to help fund the necessary work to deliver a Green New Deal. We believe that the scale of current ISA saving permits this. While we focus on the ISA, it is intended that this idea should be extended to the pension market as well. In 2018/2019, the last year for which data is available, £67.5 billion was invested in UK-based ISA accounts (Figure 1).

Figure 1: Amounts subscribed to Adult ISAs during the year, HMRC



Source: HM Revenue & Customs^{lix}

On average, more than £40 billion a year has been invested in cash ISAs since 2010.

We suggest that a Green Recovery Bond should be marketed as an ISA product to tap this market.

The product would carry a guaranteed rate of interest. At present, we recommend 1%. Early redemption would be allowed. This product would behave as if a cash deposit with bonuses payable depending on the length of investment. The bonuses should be available on each fifth anniversary of investment. Most likely they would represent the payment of an additional rate of interest related to the original guaranteed return but reflecting the number of five-year terms for which the sum is being held. So, for example, an additional 1% would be payable on the fifth anniversary, with 2% being payable on the tenth anniversary, and so on. A penalty for redemption before the fifth anniversary would be appropriate.

At this rate of return, the Green Recovery Bond would be more attractive than most cash ISAs currently available.

This fact might also attract some of the considerable sums placed on bank deposits during the Covid-19 crisis. It is thought that more than £40 billion of cash-based savings occurred during the last quarter of 2020 alone.^{lx} It is hoped that some of this cash might also be attracted to a Green Recovery Bond. It is not thought likely that all this money will be spent after the post-Covid recovery begins, although clearly, some will be.^{lxi}

The Delivery Mechanism for Green Recovery Bonds to Fund Energy-Efficient Existing and Future Buildings

This idea aims to secure as much funding as possible for the Green New Deal.

However, this report begins this process in the run-up to November's COP 26 climate conference by concentrating on the practicalities and funding needed to decarbonise and make energy efficient the UK's 30 million homes and buildings. This sector is crucial as it will save up to 40% in carbon emissions^{lxii} and be politically advantageous, generating jobs in every constituency. The report also considers how to fund the ~3 million renewable-powered and energy-efficient new homes likely to be needed over the next decade.^{lxiii}

Saving for the Planet

During his 2021 budget speech, the Chancellor, Rishi Sunak MP, announced a summer launch of an NS&I green savings bond.^{lxiv} To ensure that this initiative raises the £15 billion per annum for the next decade^{lxv, lxvi} that we believe likely to be necessary to eventually make all UK buildings energy efficient, the Chancellor should announce that this bond, which we term a Green Recovery Bond, will have an interest rate of at least 1%, plus bonuses for those who hold them for five years or more. In this way, they would be an adaptation of George Osborne's bond for retirees that in five months in 2015 raised nearly £15 billion from those on pensions.^{lxvii} Given the amounts now being saved, which are heavily biased towards those already relatively wealthy^{lxviii} who are unlikely as a result to

dissave (or spend) all that they have accumulated when this current crisis is over, we think that this is a plausible goal.

Were such funding to be used to make all UK buildings energy efficient, then we suggest that jobs would be created in every constituency of the UK. In the process, this would increase intergenerational solidarity, since the young would be those predominantly employed in these green jobs. This could then be showcased in the run-up to COP 26 and used to encourage other rich countries to incentivise their savers to follow suit.

Going Beyond the ISA Route to Saving for the Planet

Assuming that the maximum amount that anyone can put into a tax-free ISA account per annum remains at the current limit of £20,000, two things could be proposed in addition to helping ensure that more affluent savers can buy more Green Recovery Bonds.

The first is that we suggest that these bonds should also be made available to those savings in pension arrangements, whether compulsorily through government-promoted schemes or voluntarily as a result of their own contributions. In both cases, we suggest that pension providers should be required to make the option available to those making such savings and to draw it to their attention. We believe that many risk-averse investors seeking an ESG^{lxxix} savings option might welcome this opportunity. More than £100 billion is invested in UK pension funds per annum.^{lxxx}

An 'Offspring Green Recovery Bond' for Social Housing

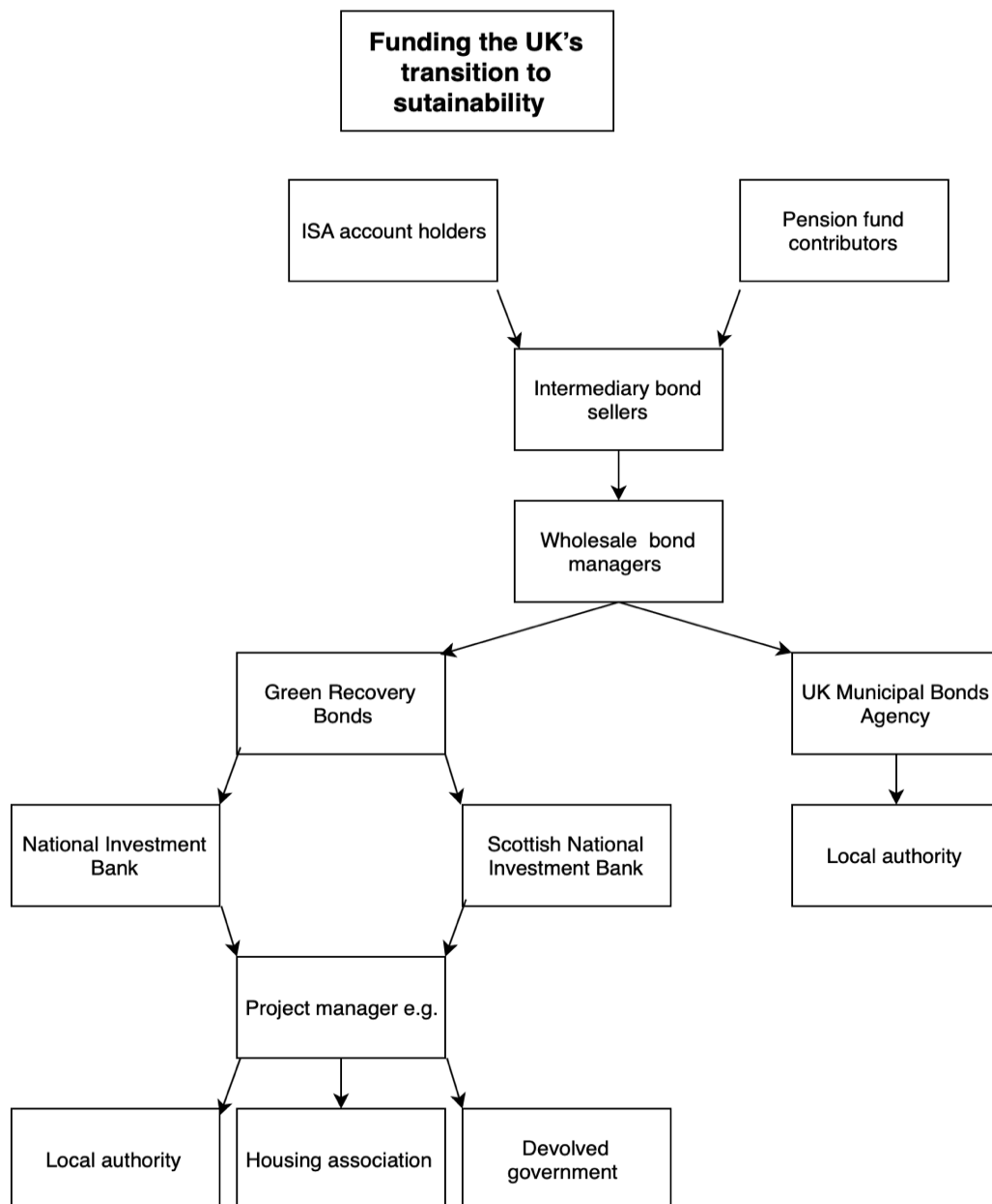
Alternatively, parents could be encouraged to buy Green Recovery Bond ISAs at a maximum of £20,000 per offspring per annum for their children or grandchildren. Such an investment, provided it is kept for seven years in such ISAs, would not incur inheritance tax. To help mitigate the increase in inequality between those with access to the 'bank of mum and dad' to buy or rent property, all such 'Offspring Green Recovery Bond ISAs' would be used to improve existing and new build social housing.^{lxxxi} It has been estimated that £14.6 billion per annum over the next 10 years will be needed to deliver the social housing the UK needs.^{lxxiii} Coincidentally, this is the amount that the previous Conservative government's pensioners bonds were able to raise in five months in 2015.

Consequences of this Approach

This 'savers for the planet' approach would be assisted by the government only making future direct investment in ISAs available via these bonds. Such a move would remove the overall subsidy to savings in the UK which is, in any event, increasing inequality, and would restrict it solely to socially useful investment in the Green New Deal. Since ISA subsidies are reported to cost £3.5 billion a year, this would also seem to be a very cost-effective use and a socially and environmentally positive use of that relief.

We think that the delivery mechanism might be as explained in Figure 2.

Figure 2: Funding the UK's Transition to Sustainability



The wholesale bond manager, which is likely to be NS&I but could be another agency, creates and runs the product on behalf of the government. The route to market from them is via intermediate bond sellers. In the case of ISAs, these might be High Street banks. In the case of pensions, they might be a wide range of pension vehicles and providers. They would take a small percentage share as a fee for the sums they sell and manage.

It is then suggested that the wholesale bond manager passes the funds to wheresoever the customer directed via their choice of funds. This could be to a local authority fund, for

example, which the UK Municipal Bonds Agency might manage. Or it could be to hypothecated use in the Green New Deal in a particular area, meaning that there could be a distinct role for agencies in Scotland, Wales, and Northern Ireland (potentially) as well as the rest of the UK.

These agencies could then direct these funds, having labelled them as Green Recovery Bonds, to the agencies best able to use them for policy fulfilment. This could include the private sector, third sector organisations like the Energy Savings Trust and universities, as well as government agencies such as the NHS and local government.

The Return

The return that would need to be paid for these bonds to deliver 1% suggested is very modest. It is, for example, lower than the interest rate charged by the Public Works Loan Board (PWLB)^{lxxiii} on a loan for up to five years.^{lxxiv}

It is also less than the rate of return that public bodies must provide for in their capital budgeting, and account for in their budgeting, which can be much higher.

In other words, for state sector bodies to provide a return of 1% plus the costs of administering the bonds is not a burden, but instead would be a saving to them compared to existing funding options, whether they can generate the actual required return or not.

What is more, the interest to be paid, at 1% on say £40 billion of savings per annum, would be considerably less than the current cost of subsidising ISAs. As such the proposed return is affordable.

Finally, as the ultimate backstop, and if required should those borrowing from the Green Recovery Bonds source not be able to repay all of the money borrowed, quantitative easing^{lxxv} could underwrite this cost. This would therefore provide liquidity for this scheme if it were ever to be required by any shortfall in the ability of the borrower to pay interest or repay the capital on these bonds. This, of course, is no different from any other government borrowing in that sense, or indeed any other NS&I product, such as Premium Bonds, all of which are currently guaranteed in this way.

Endnotes

-
- ⁱ This report is published by the Green New Deal Group Limited, 33 Kingsley Walk, Ely, Cambridgeshire, CB6 3BZ.
- ⁱⁱ <https://www.theccc.org.uk/wp-content/uploads/2014/08/Fact-sheet-buildings-updated-July-2015.pdf>
- ⁱⁱⁱ <https://commonslibrary.parliament.uk/research-briefings/cbp-7671/#:~:text=Estimates%20have%20put%20the%20number,increased%20by%20around%20244%2C000%20homes>
- ^{iv} <https://www.ons.gov.uk/economy/grossdomesticproductgdp>
- ^v <https://commonslibrary.parliament.uk/research-briefings/cbp-9060/>
- ^{vi} Based on estimates by the credit ratings agency Moody's reported here: <https://www.ft.com/content/8cbfe40d-1ce1-4dc6-bcb2-1314b77b9443>
- ^{vii} <https://www.cambridge.org/core/journals/social-policy-and-society/article/modern-monetary-theory-and-the-changing-role-of-tax-in-society/B7A8B0C7C80C8F7E38D20BE4F5099C83>
- ^{viii} <https://greennewdealgroup.org/> The authors of this report have both been members of the Green New Deal Group since its inception in 2007, when it was the first such group in the world.
- ^{ix} <https://greenallianceblog.org.uk/2019/12/18/how-the-prime-minister-can-save-the-glasgow-2020-climate-talks/>
- ^x There are approximately 30 million properties in the UK of which around 90% are domestic residences.
- ^{xi} <https://www.theguardian.com/environment/2020/jun/25/act-fast-to-stop-uk-carbon-emission-rebound-climate-advisers-urge>
- ^{xii} https://www.theeeig.co.uk/media/1096/eeig_report_rebuilding_for_resilience_pages_01.pdf
- ^{xiii} <https://www.tuc.org.uk/news/tuc-plan-would-mean-more-38000-new-green-jobs-east-midlands-over-next-2-years>
- ^{xiv} https://d3n8a8pro7vhm.cloudfront.net/libdems/pages/46346/attachments/original/1564404765/139_-_Tackling_the_Climate_Emergency_web.pdf?1564404765
- ^{xv} <https://www.edie.net/news/11/UK--capable-of-creating-700-000-new-green-jobs-by-2030-/>
- ^{xvi} <https://neweconomics.org/2020/07/a-national-house-retrofitting-programme>
- ^{xvii} <https://www.carbonbrief.org/ccc-uk-must-cut-emissions-78-by-2035-to-be-on-course-for-net-zero-goal>
- ^{xviii} https://www.theeeig.co.uk/media/1096/eeig_report_rebuilding_for_resilience_pages_01.pdf
- ^{xix} https://www.green-alliance.org.uk/resources/reinventing_retrofit.pdf
- ^{xx} https://d3n8a8pro7vhm.cloudfront.net/libdems/pages/46346/attachments/original/1564404765/139_-_Tackling_the_Climate_Emergency_web.pdf?1564404765
- ^{xxi} <https://www.superglass.co.uk/affordable-warmth-clean-growth/>
- ^{xxii} <https://www.nationalgrid.com/heating-our-homes>
- ^{xxiii} <https://www.ft.com/content/3f50601c-45a5-11e9-b168-96a37d002cd3>
- ^{xxiv} <https://www.carbonbrief.org/ccc-uk-must-cut-emissions-78-by-2035-to-be-on-course-for-net-zero-goal>
- ^{xxv} <https://www.resilience.org/stories/2020-03-10/share-the-great-switch-lessons-from-when-14-million-homes-and-businesses-changed-fuel-in-less-than-a-decade/>
- ^{xxvi} <https://www.carbonbrief.org/qa-how-the-climate-assembly-says-the-uk-should-reach-net-zero>
- ^{xxvii} <https://policyexchange.org.uk/wp-content/uploads/Charging-Up.pdf>
- ^{xxviii} <https://www.theguardian.com/business/2020/jun/01/uk-manufacturing-leaders-call-for-emergency-bailout>
- ^{xxix} <https://www.theguardian.com/business/nils-pratley-on-finance/2020/jun/24/the-government-cannot-allow-tata-to-buckle-under-covid-pressure>
- ^{xxx} <https://parityprojects.com/net-zero-housing-workforce/>
- ^{xxxi} <https://parityprojects.com/net-zero-housing-workforce/>
- ^{xxxii} <https://parityprojects.com/net-zero-housing-workforce/>
- ^{xxxiii} <https://www.nationalgrid.com/stories/journey-to-net-zero/net-zero-energy-workforce>
- ^{xxxiv} <https://www.tuc.org.uk/news/tuc-plan-would-mean-more-38000-new-green-jobs-east-midlands-over-next-2-years>
- ^{xxxv} <https://www.edie.net/news/11/UK--capable-of-creating-700-000-new-green-jobs-by-2030-/>
- ^{xxxvi} <https://neweconomics.org/2020/07/a-national-house-retrofitting-programme>

-
- xxxvii This section is based on [https://d3n8a8pro7vhm.cloudfront.net/libdems/pages/46346/attachments/original/1564404765/139 - Tackling the Climate Emergency web.pdf?1564404765](https://d3n8a8pro7vhm.cloudfront.net/libdems/pages/46346/attachments/original/1564404765/139_-_Tackling_the_Climate_Emergency_web.pdf?1564404765)
- xxxviii https://www.theeig.co.uk/media/1096/eeig_report_rebuilding_for_resilience_pages_01.pdf
- xxxix Guertler, Carrington & Jansz, 2015
- xl EEIG, 2019
- xli On a scale from A (most efficient) to G.
- xlii This section is based on https://www.theeig.co.uk/media/1096/eeig_report_rebuilding_for_resilience_pages_01.pdf
- B BEIS, 2020c
- xliii This would be done to Energy Performance Certificates (EPC) level C by 2030.
- xliv https://www.theeig.co.uk/media/1096/eeig_report_rebuilding_for_resilience_pages_01.pdf
- xlvi <https://www.wmca.org.uk/news/green-recovery-plan-for-the-west-midlands-unveiled/>
- xlvii <https://www.theguardian.com/world/2020/apr/21/northern-mayors-call-for-economic-rethink-after-coronavirus-burnham-rotheram>.
- xlviii Community Energy England, Community Energy Wales & Scottish Power Energy Networks, 2019
- xlvi Community Energy England, 2020
- l <https://www.insidehousing.co.uk/news/news/green-homes-grant-scrapped-for-homeowners-as-local-authority-scheme-extended-70208>
- li <https://www.theguardian.com/environment/2021/apr/22/applications-to-green-homes-grant-scheme-surged-in-month-before-it-was-axed>
- lii <https://www.gov.scot/publications/energy-efficient-scotland-route-map/>
- liii <https://www.gov.scot/policies/energy-efficiency/energy-efficiency-in-homes/>
- liv <https://energysavingtrust.org.uk/sites/default/files/EST%20Programmes%20In%20Scotland%20FINAL.pdf>
- lv <https://www.gov.scot/publications/energy-efficient-scotland-route-map/>
- lvi Based on conversations with Warmworks <https://www.warmworks.co.uk/>
- lvii McAlpine, R., Dalzell, C., & Venabales E. (eds). (2019). The Common Home Plan: A Green New Deal for Scotland, Common Weal. Available at: <https://commonweal.scot/policy-library/common-home-plan>
- lviii https://www.theeig.co.uk/media/1096/eeig_report_rebuilding_for_resilience_pages_01.pdf
- lix <https://www.gov.uk/government/statistics/individual-savings-account-statistics>
- lx <https://commonslibrary.parliament.uk/research-briefings/cbp-9060/>
- lxi We acknowledge that opinion varies widely on this issue.
- lxii http://bpie.eu/wp-content/uploads/2015/10/HR_EU_B_under_microscope_study.pdf
- lxiii <https://commonslibrary.parliament.uk/research-briefings/cbp-7671/#:~:text=Estimates%20have%20put%20the%20number,increased%20by%20around%20244%2C000%20homes>
- lxiv <https://www.ftadviser.com/investments/2021/03/03/budget-2021-ns-i-to-offer-green-savings-bond/>
- lxv https://www.theeig.co.uk/media/1096/eeig_report_rebuilding_for_resilience_pages_01.pdf
- lxvi <https://www.pbctoday.co.uk/news/planning-construction-news/cost-ending-housing-crisis/61174/>
- lxvii <https://www.bbc.co.uk/news/uk-politics-31241867>
- lxviii <https://commonslibrary.parliament.uk/research-briefings/cbp-9060/>
- lxix Environmental, social, and governance.
- lxx Author's estimate based on annual cost of tax reliefs given exceeding £50 billion per annum. <https://www.gov.uk/government/statistics/registered-pension-schemes-cost-of-tax-relief>
- lxxi See <https://www.theguardian.com/commentisfree/2021/apr/18/its-not-what-you-earn-but-what-your-parents-have-that-truly-counts> for discussion.
- lxxii <https://www.pbctoday.co.uk/news/planning-construction-news/cost-ending-housing-crisis/61174/>
- lxxiii Public Works Loan Board. The PWLB lending facility is operated by the UK Debt Management Office (DMO) on behalf of HM Treasury. The facility provides loans to local authorities, and other specified bodies, from the National Loans Fund, operating within a policy framework set by HM Treasury. This borrowing is mainly for capital projects.
- lxxiv <https://dmo.gov.uk/responsibilities/local-authority-lending/current-interest-rates/>
- lxxv <https://www.bankofengland.co.uk/monetary-policy/quantitative-easing>