



# Net zeroing in on investment

Priorities for the new Government in delivering a fair transition

**Jonathan Marshall** July 2024



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## Summary

Decarbonisation has been one of the major success stories of recent Conservative-led Governments, with the UK's carbon footprint now less than half of what it was in 1990, and with 70 per cent of this progress made since 2010. But the coming Parliament brings with it ambitious targets for decarbonising the economy, most pressingly the 68 per cent cut on 1990 levels by 2030, set by the UK's Nationally Determined Contribution. Meeting these goals will require a four-fold increase in investment relative to annual levels between 2010 and 2022, as well as a broadening to sectors where progress has been painfully slow to date.

The Climate Change Committee's latest Progress Report highlighted that this challenge is most acute in electricity generation, surface transport, and housing, areas which contain more than two-thirds of the carbon footprint of low-to-middle income households. A successful transition, therefore, will require policy makers to ensure that actions to accelerate the national net zero transition in these areas do not end up levying disproportionate costs on lower-income families. In this note we shine a light on approaches that can be used to ensure this does not happen.

For many low carbon technologies, such as electric cars and heat pumps, lifetime costs – that is, the total of purchase and running costs – are now comparable or lower than those for their high-carbon predecessors. But lifetime costs are only part of the picture. Clean technologies are, as a rule, expensive to purchase but cheap to run – great for families who can enjoy lower bills, but only if these upfront costs can be navigated in the first place. The upfront cost of a heat pump, for example, accounts for 40 per cent of total lifetime costs (compared with just 17 per cent for a gas boiler) whereas the initial investment on a typical electric family car is 53 per cent of lifetime costs, 10 percentage points more than the equivalent non-electric alternative.

But this need to get households spending comes at a time of sizeable economic headwinds. The legacy of the cost of living crisis is that families are poorer and spending less, while higher interest rates are reducing disposable incomes for mortgagors. More expensive borrowing is also weighing on debt-driven purchases with, for example, the number of loan-financed car purchases falling by 4 per cent for new cars and 7 per cent for used cars in the past year. In addition, some products on which the net zero transition is reliant have become significantly more expensive: the cost of insulating materials, for example, has nearly trebled since 2015 – the highest rate of inflation of any common construction material.

So, with high costs and in the context of stretched household and public finances, a key goal for the new Government is to devise schemes to provide targeted support to help

poorer families. Our national track record here is, however, not encouraging. Support schemes for home insulation, for example, have jumped between different eligibility criteria, from broadly well-targeted pre-2013 policies, to those that have been overly restrictive or where richer households were actually more likely to be eligible than their poorer counterparts.

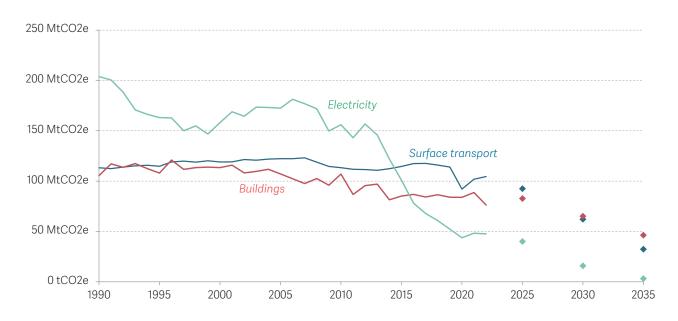
But investment also needs to be made by firms. Here, ensuring finance is available is one thing, but getting projects actually up and running is another. A key blocker in this space is progress being stymied by the planning system. Although the Government has already acted to ease planning restrictions in some areas – notably onshore wind – more steps are needed to reduce barriers to investment. There are a number of options to do this, but one which has been frequently discussed is financial transfers to those living near proposed development. In the case of clean power, however, the majority of proposed renewable energy projects are in wealthier areas (just 13 per cent of proposed solar projects are in the poorest 40 per cent of neighbourhoods, compared with more than 60 per cent in the 40 per cent of richest areas), and in areas with an above-average share of residents aged 65 or over (more than 90 per cent of proposed onshore wind, solar, or grid-scale battery projects are in these areas). It is important that using financial incentives to assuage locals' concerns – as proposed by both the new and previous Government – does not lead to widespread compensation from younger, poorer and urban households to their older, wealthier and rural counterparts.

The new Government should be commended for its fast start on climate action, a change from the previous administration which has been criticised for overseeing an increase in the gap between actions and targets. However, the need to deliver deeper and more widespread action risks bringing multiple trade-offs between decarbonisation and living standards. It is vital that both are given equal billing in policy proposals, such that households on low- to middle-incomes are able to participate in the transition, and do so without bearing costs they could find unaffordable.

# Hitting ambitious targets means the new Government will need to deliver more wide-reaching decarbonisation than in the past

Progress on decarbonisation has been one of the major success stories of successive Conservative-led Governments. The UK's territorial carbon footprint is now less than half of what it was in 1990, with the majority (70 per cent) of that progress being delivered since 2010.<sup>1</sup> As shown in Figure 1, this commendable progress has largely been driven by decarbonising Britain's electricity generation, as coal-fired generation has been effectively taxed offline, to be replaced by more efficient gas-fired and renewable generation.<sup>2</sup>

## FIGURE 1: Cutting emissions from more than just electricity will need to be a priority during the current Parliament



Historical greenhouse gas emissions and targets under forthcoming carbon budgets, for selected emissions sectors: UK

NOTES: The UK Government is set to deliver a renewed Net Zero Strategy by May 2025, which could see changes in relative ambition between emissions sectors. SOURCE: RF analysis of DESNZ, CCC data.

However, continuing the UK's progress toward our decarbonisation targets is set to become more difficult. The the key emissions goal for the new Government is that defined by the UK's Nationally Determined Contribution (NDC), part of our international obligations under the UN's Framework Convention on Climate Change process. This

<sup>1</sup> See: <u>UK half way to net zero</u>, Department for Energy Security and Net Zero, March 2024.

<sup>2</sup> See: <u>2024 Progress Report to Parliament</u>, Climate Change Committee, July 2024, and J Marshall and A Valero, <u>The Carbon Crunch</u>, Resolution Foundation, September 2021, and E Fry and J Marshall, <u>Electric Dreams</u>, Resolution Foundation, April 2024.

requires a 68 per cent cut on 1990 emissions levels by 2030.<sup>3</sup> The new Government has emphasised the importance of meeting this goal, and has made clean energy one of its five 'missions'.

But delivering on these targets will require deeper decarbonisation than the UK has achieved so far: since 1990, the electricity sector – the shining light in our story so far – has achieved an annual rate of decarbonisation of 4 per cent, but meeting 2030 goals will require this pace to more than double to 9 per cent per year.<sup>4</sup> Crucially, this will also require action in areas like homes and surface transport, in which carbon emissions have remained stubbornly high. Discounting the effects of the Covid-19 pandemic on travel patterns, UK transport emissions have remained largely unchanged since 1990. But these emissions will need to fall by 3 per cent per year over this Parliament. For homes, an annual rate of decarbonisation of less than 1 per cent over the past two and a half decades has been achieved, driven largely by the 2005 ban on the sale of non-condensing gas boilers rather than actually insulating homes.<sup>5</sup> That will need to increase to 3 per cent to keep us on track.

As well as picking up the pace of change, the Government will need to spend more effort than before in considering the distributional impacts of decarbonisation. As Figure 2 shows, the majority of households' carbon footprint comprises emissions from electricity, homes and transport, but the proportion is greater for households at the bottom of the income distribution – close to 70 per cent for the lowest four income deciles, compared with less than 60 per cent in the highest two.

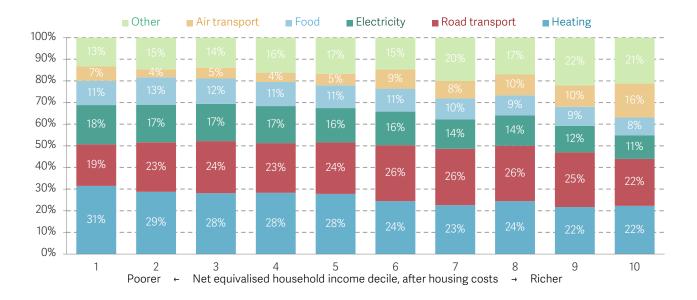
<sup>3</sup> See: The <u>Fifth Carbon Budget</u>, Climate Change Committee, November 2015 and <u>United Kingdom of Great Britain and Northern</u> <u>Ireland's Nationally Determined Contribution</u>, UK Government, September 2022.

<sup>4</sup> For more on the Government's plan to decarbonise the power sector by 2030, see: <u>Make Britain a Clean Energy Superpower</u>, Labour Party, March 2024.

<sup>5</sup> RF analysis of English Housing Survey data shows that, between 2010 and 2021, the proportion of homes in England with condensing boilers increased by 54 percentage points, from 24 per cent to 78 per cent, compared with an 18 percentage point uptick in the share of homes with more than 150mm of loft insulation (44 to 62 per cent), and a 12 percentage point rise in the share of homes with insulated cavity walls (47 per cent to 49 per cent).

## FIGURE 2: The majority of poorer households' carbon footprints are from electricity, staying warm at home, and getting around

Proportion of household emissions by source, by equivalised after housing costs income deciles: UK, 2019



SOURCE: RF analysis of HMT, Net Zero Review data.

So, the priority for policy makers during this Parliament is clear: make progress in areas that have so far proved difficult while protecting lower-income households from an unfair cost burden.

Balancing these twin policy priorities will require a new approach to the way net zero policies are designed and implemented, treating them in the same way those in broader economic policy making are, with a greater understanding of impacts beyond emissions reduction. Doing this, and doing it well, means grappling with the wider economic context, accounting for more – and bigger – trade-offs, and ensuring that, when policy does create winners and losers, it is not always those on lower incomes who bear the brunt. In this note we set out the broad contours of these challenges, starting with the nature of the investment challenge ahead, before discussing the headwinds to that investment, particularly in the context of the required acceleration in the decarbonisation buildings and the energy system.<sup>6</sup>

<sup>6</sup> A more complete analysis of the investment challenge facing the electricity sector can be found in: E Fry and J Marshall, <u>Electric</u> <u>Dreams</u>, Resolution Foundation, April 2024. Detailed Resolution Foundation research on decarbonising transport will be released later this year.

### The next phase of decarbonisation is all about investment

The 2021 Net Zero Strategy – set to be updated by the new Government by May 2025 following a legal ruling over the adequacy of plans detailed by the previous administration<sup>7</sup> – spells out the scale of the investment challenge ahead. It notes that there is a need for nearly £60 billion of additional spending (i.e., on top of that associated with a counterfactual where decarbonisation is not achieved) between 2028 and 2032, the years covered by the fifth carbon budget. This is a macroeconomically significant figure (roughly 2 per cent of GDP) and represents a four-fold increase – and a broadening across sectors – on the £198 billion invested in the 13 years between 2010 and 2022, of which three quarters (73 per cent) was accounted for by the electricity system.<sup>8</sup>

But it is not just an increase in the scale and breadth of spending: its profile will also need to change, as technologies that are generally more expensive to buy but cheaper to run change the balance between upfront and ongoing costs that households face. While in many instances the lifetime costs (i.e. purchase and running expenditure over a product's lifetime) will be lower for low carbon alternatives, in future a greater share of this outlay will occur at the point of purchase. For example, Figure 3 provides an example for a household purchasing an electric family car. It shows that around half the total cost - including fuel, insurance and maintenance - is incurred at the point of purchase, a 10-percentage point increase than for a petrol equivalent. For home heating this figure is even starker, with the upfront costs of a heat pump accounting for 40 per cent of lifetime costs (in the absence of subsidy schemes like the Boiler Upgrade Scheme, in operation at the time of writing), more than double the 17 per cent of lifetime costs that are associated with capital expenditure on a gas boiler.<sup>9</sup> And while electricity generation investment is 'upstream' from households, the dramatic swing in the proportion of costs that are capital investment (from 6 per cent for a gas turbine to close to 60 per cent for an offshore wind farm), will have a clear impact on living standards as it feeds through into household bills.<sup>10</sup>

8 Source: Figures obtained from an FOI request submitted to HMRC in response to written statement HCWS690.

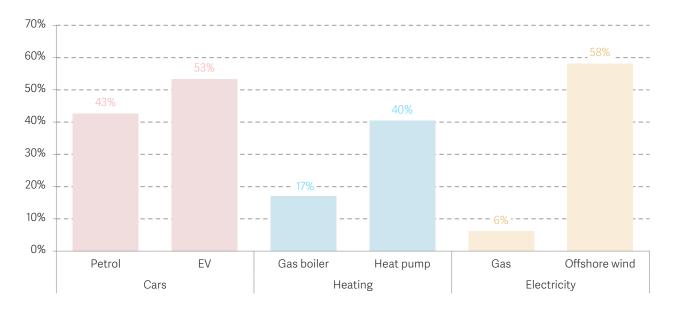
9 Analysis is based on current forecasts for gas and electricity prices and assuming no reform to rebalance levies.

<sup>7</sup> For more detail, see: High court judgement on the government's climate plan, Friends of the Earth, May 2024,

<sup>10</sup> See: E Fry and J Marshall, <u>Electric Dreams</u>, Resolution Foundation, April 2024. Detailed Resolution

## FIGURE 3: **Upfront costs are a greater share of the lifetime cost for low carbon technologies**

Upfront investment costs as a proportion of lifetime costs, for selected technologies: UK, 2024



NOTES: Figure for cars is based on a petrol Vauxhall Corsa and an electric alternative, in which the electric version is priced at a premium of 22 per cent. New boiler costs are estimated at £2,500 including installation, and £10,000 for an air source heat pump, in line with industry estimates and not accounting for current heat pump grants. 15-year lifetimes for new cars and heating systems. Running costs are based on gas and electricity prices under the Q3 2024 Ofgem price cap and using gasoline futures curves from the intercontinental exchange, and assume no policy interventions to alter relative prices between electricity and other fuels, with EV running costs based on home charging. The shares of capital and operational expenditure for new electricity generators are taken from 2023 Government levelised cost of electricity estimates, and are therefore subject to assumptions on future levels of carbon and natural gas prices. SOURCE: RF analysis of DfT, Vauxhall, Ofgem, Autotrader, DESNZ data.

These changes in relative share of overall costs that come at the point of purchase and during operation will cause changes in household consumption patterns, and, as such, will be more manageable for some than for others. And recent policy measures to help facilitate this change in spending patterns have had mixed success. For example, efforts to boost the uptake of rooftop solar, or renewable-heating systems, required families to shoulder large initial investments, which were then repaid over time through government subsidies.<sup>11</sup>

As such, it is imperative that any future demand-side interventions account for the barriers associated with high levels of upfront costs. The implication of leaving households exposed to high levels of initial capital spending, particularly those on low-tomiddle incomes, is a slower and more uneven transition.

<sup>11</sup> For more discussion on how the Renewable Heat Incentive was hindered by high upfront costs, see: Low carbon heating of homes. and businesses and the Renewable Heat Incentive, National Audit Office, February 2018.

# There are big economic headwinds to achieving the required level of investment

Not only will households be exposed to changing types of spending during this Parliament, they will do so while being buffeted by significant economic headwinds. The legacy of the cost of living crisis has been lower real household disposable incomes and lower real household spending as families continue to grapple with higher costs.<sup>12</sup>

On top of this, higher interest rates are also weighing on household spending. Not only are housing costs rising,<sup>13</sup> but higher borrowing costs make debt-funded purchases more expensive. Households are increasingly using finance to purchase new cars, with the share of sales through loans such as hire purchase agreements now accounting for around 85 per cent of sales to consumers. However, recent industry figures suggest that the appetite for this type of borrowing is waning, with consumer lending on new cars falling by 4 per cent in the 12 months to May 2024, and that for used cars down 8 per cent on the year in March 2024.<sup>14</sup>

Another key area which is likely to be affected by higher interest rates is emissions from the UK's housing stock. Policy makers have long sought for ways to encourage property owners to self-finance energy efficiency and clean-heat improvements in their homes, and the Labour Party's 2024 manifesto explicitly targeted banks and building societies as sources of finance for the transition.<sup>15</sup> But forward-looking indicators of improvements to home efficiency are not encouraging: the number of planning applications received to alter existing properties reached an historic low in 2023, falling by more than 10 per cent on 2022 levels.<sup>16</sup> This is consistent with a headwind from a rise in the cost of finance.

Further, following the recent period of high inflation, the prices of some low-carbon investment goods have actually risen. The most concerning example in this space is materials to insulate homes which, when compared to all other common construction materials, have seen the highest relative price increase since 2015 (as shown in Figure 4). This means that both any government-allocated funds will insulate fewer homes, but also costs move further away from those affordable for households on lower incomes

15 See: Labour Party Manifesto 2024: Our plan to change Britain, Labour Party, June 2024.

<sup>12</sup> See: A Corlett and L Try, <u>Hard Times</u>, Resolution Foundation, June 2024; M Brewer et al., <u>The Living Standards Outlook 2023</u>, Resolution Foundation, January 2023; and N Cominetti et al., <u>Paying the price</u>, Resolution Foundation, May 2024.

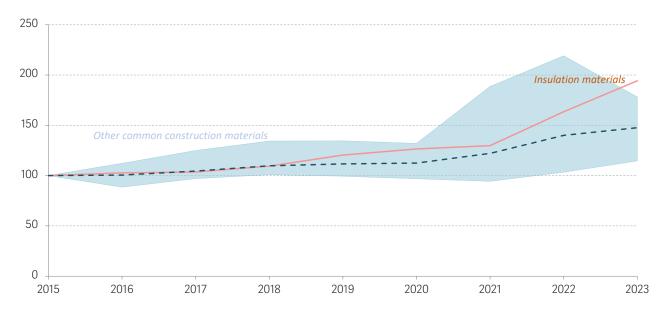
<sup>13</sup> See: S Pittaway, <u>The Mortgage Crunch</u>, Resolution Foundation, June 2023; and C Pacitti, <u>Through the roof</u>, Resolution Foundation, April 2024.

<sup>14</sup> See: Latest Motor Finance Statistics, Finance and Leasing Association, accessed 14 July 2024, and Used car finance volumes fall 8% in March, Motortrader.com, May 2024.

<sup>16</sup> Source: RF analysis of MHCLG Planning application statistics.

## FIGURE 4: The long tail of the energy crisis is still being felt in energy intensive products, such as materials for home insulation

Price indices of common construction materials (2015=100), UK



SOURCE: RF analysis of DBT Building Materials and Components statistics.

## Making progress towards ambitious targets in the face of such headwinds requires policy to be targeted

If households are to be chivvied towards spending on low-carbon items and services, there unfortunately are, and will likely remain, significant cohorts of society for whom these outlays are not affordable. Nowhere is this more apparent than for insulating homes, where even before material prices increased, estimates of the average cost to improve the energy efficiency of an EPC D or lower-rated property ran to more than £9,000.<sup>17</sup> It was never tenable for homeowners on lower incomes to foot this bill, but the cost of living crisis has made this even more difficult.

But nor is it affordable for the state to foot the bill for upgrades for tens of millions of homeowners. This is true both from the perspective of the total cost involved (potentially as high as £70 billion over the next 10 years),<sup>18</sup> and from a fairness point of view – a tax-funded programme would benefit property owners at the cost of all taxpayers.

So, a clear priority for this Parliament, in the context of improving home insulation, is to find a way to target policy to those who need it most.

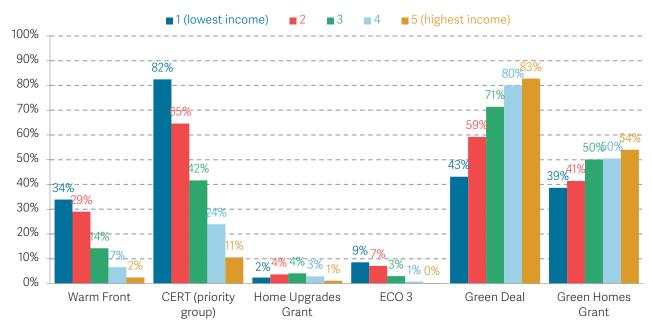
<sup>17</sup> A Anis-Alavi et al., <u>Hitting a Brick Wall</u>, Resolution Foundation, December 2022.

<sup>18</sup> A Anis-Alavi et al., <u>Hitting a Brick Wall</u>, Resolution Foundation, December 2022.

However, as Figure 5 shows, in the past there has been something of a scattergun approach in deciding who is eligible for state subsidies to improve the energy performance of their homes. Pre-2013 schemes (including Warm Front, and the priority group for the carbon emissions reduction target (CERT) scheme) were based on criteria that included incomes, benefit eligibility and other vulnerabilities, such as old age or having dependent children. As such, these were more accessible to poorer households than their richer counterparts. On the other hand, some schemes have been very tightly targeted at specific problems, with the resulting trade off being the exclusion of large shares of the population. For example, the need to be in an off-gas grid home to receive support under the Home Upgrade Grant, or in social housing to be eligible for subsidies under the final stage of ECO3, clearly limited their ability to support notable proportions of the poorest families in England. Finally, eligibility for schemes such as the Green Deal and Green Homes Grant was predicated by property ownership (including via private landlords for the latter) but not tailored such that those on lower incomes were not more eligible for support than those who could be expected to fund property upgrades themselves.

#### FIGURE 5: **UK Governments have a very mixed record on targeting support for home energy efficiency upgrades**

Share of households eligible for selected energy efficiency schemes, by after housing costs income quintiles: England



NOTES: Eligibility for each scheme was assessed as follows. For Home Upgrades Grants families must own and live in the property, not use a gas boiler as the main heating system, have an EPC rating of D or worse, and have a household income of £36,000 per year or less. For ECO3, eligible households must be in receipt of certain benefits, live in a social housing property rated E or worse on the EPC scale, and the householder must be identified as being in fuel poverty. Green Deal eligibility is based on home ownership and that the property in question is not yet fitted with the lowest cost insulation measures, such as loft or cavity wall insulation, to enable the 'Golden Rule' of bill savings outweighing costs being met. Green Homes Grant eligibility is based on households owning their own home, or living in a rented property, with an EPC rating of D or below, and CERT priority group scheme is based on households being vulnerable (defined as containing dependent children or disabled people) or aged over 70 or in receipt of means tested benefits, and owner-occupiers either in receipt of means tested benefits, or vulnerable. Warm Front eligibility is predicated on the household being an owner occupier or private renter, in receipt of benefits or vulnerable and with an EPC rating of D or worse.

SOURCE: RF analysis of English Housing Survey, IFS data.

Thus far, the increased ambition from the new Government towards insulating Britain's homes (and the extent to which it has been welcomed by wider stakeholders) has been couched in terms of how much money is made available to be spent, doubling that planned under the previous Conservative Government. And the 2024 Labour manifesto did not discuss whether or how support would be targeted – be it by income or wealth, eligibility for benefits, age, disability or other vulnerabilities.<sup>19</sup> However, considering the patchy record on targeting support to those most in need, it is arguable that how subsidies are targeted is at least as important as the size of the pot of money on offer in the first place.

<sup>19</sup> For comparison, the 2024 Conservative manifesto pledged entirely untargeted vouchers to improve building efficiency. For more, see: <u>The Conservative and Unionist Party Manifesto 2024</u>, Conservative Party, June 2024.

# But, as well as ramping up investment, the new Government needs to make sure things actually get built

Deciding who pays for the net zero transition, as well as how and when, will be the key challenge facing policy makers during this Parliament, but it isn't the only one. There remain numerous blockages that stop money actually being spent.

Here, the UK's planning system is frequently singled out as a key example, blamed for slow progress on renewable energy and grid capacity, on electric-vehicle charging infrastructure, and on installing rooftop solar generation.<sup>20</sup> So it is welcome that, within a few days of taking office, the new Government made key amendments to the National Planning Policy Framework, such that onshore wind – the cheapest way of adding new generation capacity to the electricity system – would face fewer hurdles in the pre-development stage, and has outlined new legislation in the King's Speech to enact wider changes in the planning system.<sup>21</sup>

So, changes to planning are welcome, but significant barriers to building remain. Over the next Parliament, a host of new electricity pylons and substations will need to be built to transport renewable energy from the point of generation (often in the sea) to urban areas where the majority of demand sits, and we might expect local opposition to these.<sup>22</sup> There are options for addressing this resistance, including pushing decision making up to the central government level, such that local communities lose their ability to oppose. Other options that have been discussed include financial incentives, such as offering discounted energy bills to families proximate to new development, or making payments at the community level to fund new local amenities. Government plans in this space are closer to the latter, with pre-election pledges stating that 'a Labour Government will ensure that communities directly benefit from hosting clean energy infrastructure'.<sup>23</sup>

A first step towards understanding what might work to assuage local concerns is to examine the types of communities that will be affected by new developments. In the left-hand panel of Figure 6 we do this on a national level, matching recent planning data for renewable energy projects in England to statistics on the demographics of neighbourhoods (LSOAs<sup>24</sup>) of the proposed developments. This shows that electricity infrastructure – ground-mounted solar photovoltaics, onshore wind, and grid-scale battery storage – is more likely to be planned in wealthier areas of the country. This

22 For more details on electricity grid expansion, see: Beyond 2030, National Grid ESO, accessed 15 July 2024; and for an example of localised resistance to infrastructure: Green Party's new MP calls for pause on pylons, BBC News, July 2024.

23 Make Britain a Clean Energy Superpower, Labour Party, March 2024.

<sup>20</sup> See: P Brandily et al., <u>Beyond Boosterism : Realigning the policy ecosystem to unleash private investment for sustainable growth</u>, Resolution Foundation, June 2023; and <u>Chancellor Rachel Reeves is taking immediate action to fix the foundations of our</u> <u>economy</u>, HM Treasury, July 2024.

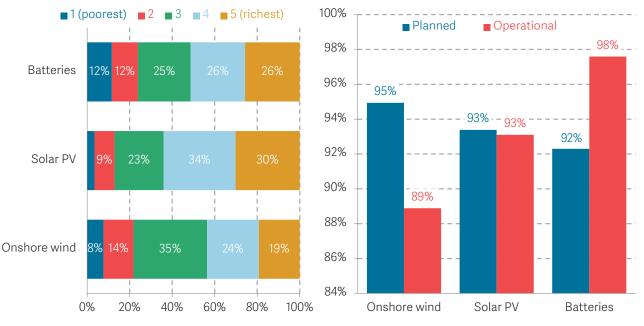
<sup>21</sup> See: <u>Policy statement on onshore wind</u>, UK Government, July 2024; <u>Electricity generation costs 2023</u>, Department for Energy Security and Net Zero, November 2023; and <u>King's Speech 2024</u>: <u>background briefing notes</u>, UK Government, July 2024.

<sup>24</sup> Lower Super Output Areas (LSOAs) are statistical geographies with an average population of 1,500 people.

is most explicit in the case of solar energy, where just 13 per cent of projects where planning has been submitted but not approved are in neighbourhoods in the two quintiles with the highest Index of Multiple Deprivation (IMD) income score. By contrast, nearly two thirds (64 per cent) of proposed projects are in the two quintiles with the lowest levels of income deprivation. Additionally, the right-hand panel of Figure 6 shows how both proposed and operational electricity system infrastructure is overwhelmingly in areas with an above-average share of residents aged 65 and over. Virtually all (95 per cent) of planned onshore wind developments fit into this category, while more than 90 per cent of solar and battery projects do.

## FIGURE 6: Areas that are more likely to have energy infrastructure built nearby tend to be richer, and with older residents, than the average

Share of onshore wind, solar photovoltaic and battery storage planning applications by IMD income deprivation quintile of the LSOA in which the project is located (left panel) and by those located in LSOAs with an above average share of residents aged 65 or over (right panel): England



NOTES: Solar PV data is for ground-mounted installations only, excluding those on the roofs of buildings. Includes all planning applications submitted to June 2024 except those for projects that are now in operation.

SOURCE: RF analysis of DESNZ renewable energy planning database, ONS LSOA IMD data, 2021 Census data.

These findings suggest that it may be prudent to think hard about the design and scale of any financial transfers to make a relatively small proportion of the population acquiesce to infrastructure that will benefit the country. Too large and they risk seeing poorer urban households overcompensating their better-off and retired counter parts, yet too small and they may not be sufficient to appease older households for whom disruption will start immediately but benefits will only be realised over decades. The extent to which the benefits of building new infrastructure – in this case lower energy bills – are felt across the country, should be a factor in determining how best to navigate a Parliament in which planning battles will be a regular occurrence.

## Driving an increase in investment to accelerate the net zero transition requires difficult decisions in the near term

There is no avoiding the fact that significant investment will be needed during the coming Parliament to achieve our ambitious net zero targets. However, as this note has set out, tackling carbon emissions in key household-facing sectors will need to be a priority for the new Government if we are to stay on track. A key component of the policy challenge in this context is the need to recognise that emissions from these sectors make up a greater share of household carbon budgets for lower-income families. Many such families are constrained in their ability to cover a major outlay, even if that investment will pay off over time.

This challenge is exacerbated by the legacy of the cost of living crisis which has left us with higher interest rates and stretched family finances in the face of a higher cost of essentials, including housing. This, combined with the higher price of some low-carbon goods, makes it clear that the new Government will need a plan to make sure climate solutions are not out of reach for poorer households. Devising an effective system to means-test support should be a priority. Schemes to help households with the cost of insulating homes, for example, have jumped from being broadly well targeted, to overly restrictive such that only a fraction of families can apply, to being spread broadly across the income distribution and ending up more available to richer families than to poorer ones.

And, finally, while delivering investment will be the key theme for the next five years, barriers such as planning can actually prevent money being spent. The Government has acted to reduce the ability of local communities to object to some renewable energy projects in their area, but this alone may not be sufficient to get spades in the ground without local backlash. There are, however, ways to assuage localised concerns, one of which is financial transfers to those living near proposed development. But employing this widely or too generously could have the unintended consequence of younger and poorer households overcompensating their older and wealthier counterparts.

The new Government has made a fast start in terms of action on climate policy. But the latter half of the 2020s will bring multiple trade-offs between action to cut carbon and action to improve living standards. Being successful in the former means striving to ensure that the latter does not fall by the wayside.



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