Resolution Foundation
BRIEFING

A chilling crisis

Policy options to deal with soaring energy prices

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Summary

A catastrophe is coming. A large increase in energy bills this winter was always going to be difficult to bear, but the explosion that we are now on course for will be totally unmanageable for millions of households. The increase in the scale of the problem will require a different, not just a bigger, policy response. This paper examines what that should be.

A winter of discontent is coming

Later this week it will be confirmed that energy bills will rise to around £3,600 in October, and they are on course to exceed £4,500 at the start of 2023. This surge will combine with the jump in households' energy needs that the winter brings: nearly half of domestic gas demand occurs in just three months between January-March. The result is that the cost of energy for the typical household this financial year (2022-23) will be £3,478, up from £1,472 last year. After a decade and a half long stagnation in living standards, low-to-middle income Britain does not have £2,000 per household to spare.

Significant government support has already been announced, and in some cases delivered, but even taking that into account the increase in bills will require lower income households to cut their non-essential spending by a quarter on average, and in many cases by significantly more.

A worse fate is in store for the 4 million households on pre-payment meters, who are disproportionately on the lowest incomes, including 30 per cent of the poorest fifth of the population. They cannot spread this winter's energy cost surge over the year as a whole in the way that those who pay by direct debits will do. A typical energy using household on a PPM will need to find £613 in January alone: that is equivalent to almost half of their disposable income and, voluntarily or otherwise, will result in many having their energy supplies cut off mid-winter.

For those paying in other ways a huge surge in arrears lies ahead of us. The number of households behind on at least one household bill had already increased from 9 per cent in October 2021 to 14 per cent by June 2022. For the households involved this will do lasting damage to their credit ratings as well as posing financial challenges for many energy suppliers.

Thousands of households going without power and millions running up arrears is what the winter of discontent ahead of us looks like, and addressing it must be the overwhelming priority for the new Prime Minister.

Policy needs to recognise households face very different hits and have very different abilities to cope

The Government has already announced over £30 billion of support for households, most recently in May. But the scale of the challenge to come has deepened materially since then: the cost of energy this winter (October to March) have increased by more than 47 per cent (£881) relative to the increase that was expected in May. So, a further round of policy interventions will be required.

The choice of levers for delivering such support must be updated to reflect the sheer scale of what now lies ahead and the variation in its impact. The Government cannot prevent rising energy prices from making the UK poorer but can decide who bears those costs and when.

Reflecting vast variation in the ability of higher- and lower-income households to cope with higher energy bills, the top priority for policy makers must be to support to those on low-to-middle incomes. Following a decade and a half of squeezed living standards, low-income households have already seen the share of their spending going on essentials rise from 52 per cent in 2006 to 59 per cent in 2019. Poorer households do not have luxury spending to forego, with almost 4 in 10 of those with incomes under £40,000 saying they are already cutting back on essentials. While higher-income households saw savings increase hugely during the pandemic, and will be able to draw down on them in the winter ahead, many lower-income households do not have that option: more than two-fifths of people in the lowest-income quintile could not draw on their own resources to cover an unexpected major expense.

But the sheer scale of the cost increase now in train means we need to think hard about how best to support those on low-to-middle incomes, as variation across different households' ability to cope with rising bills combines with wide variation in the size of the bill increases themselves. The policy response to date, resting on fixed amounts of support per household, has entirely ignored this, but that is no longer tenable. While typical higher-income households tend to use slightly more energy than those on lower incomes, there is also variation in energy usage among different households on low incomes (above average energy demand means 3 in 10 (30.5 per cent) of low-income households are on course for bills of over £4,000 this year). This largely reflects variation in the size of families and the nature of their homes, rather than different consumption preferences.

The argument that the scale of price rises is so large that it is now time for a policy response that recognises different energy usage is controversial. Many economists, including the IMF, have argued that supporting energy need (for example, with price

reductions) must be avoided because it reduces the incentive for households to cut energy consumption. This is true in general, and particularly in the longer term, but is very dangerous in the context of this winter. With energy costs set to be multiples of what households are used to, the benefit from further marginal bill rises increasing already huge incentives for poorer households to cut consumption will be far too small to justify ruling out measures that limit hardship. In addition, many poorer households are simply not in a position to make the kind of adjustments we want to incentivise. In the lowest-income decile, 62 per cent are renters. Raising renters' energy bills doesn't incentivise their landlord to invest in energy efficiency. And there are many cases in which we absolutely do not want to further incentivise reduced energy use: cold homes lay behind 8,500 excess winter deaths in the UK in 2019.

Addressing this dual variation in the impact of price rises and households' ability to cope with them is far from easy. It involves trade-offs in terms of which variation to focus resources on, and there are highly constrained options for delivering support, with no mechanisms currently simultaneously targeting both household income and energy usage. But the fact that it is hard doesn't mean we shouldn't be clear about these being the priorities in designing policy: providing support where it is less acutely needed is a waste of inevitably rationed fiscal resources, and pushes the Bank of England towards setting higher interest rates than it would otherwise do. Failing to provide support where required means widespread destitution this winter.

The proposals to date fall short

Existing proposals for further action, from the contenders to be the next Prime Minister and opposition parties, have some merit but fall well short of answering the dual exam question set out above.

Both Conservative leadership candidates have suggested removing some of the policy pressure on energy bills, by scrapping VAT or funding 'green levies' from general taxation in the cases of Rishi Sunak and Liz Truss respectively. While there are some differences in the impact of these measures, they share the same strengths and weaknesses. They do provide more support to those seeing higher energy bill rises but are far too small to play a major role (saving the typical household £124 or £85 this winter from removing VAT or levies respectively) and provide slightly more support to higher- than lower-income households.

Whatever your view on the wider costs and benefits of large tax cuts proposed by Liz Truss, they are largely irrelevant to the problem facing the country this winter. Reversing the recent National Insurance rise would see twice as much of the benefit go to the top twentieth (28 per cent) as the entire bottom half (15 per cent), and despite energy bills

rising across the country it would raise incomes in London (£640) by twice as much as in the North East, Yorkshire & the Humber and Wales (£290 a year).

In contrast, Rishi Sunak's proposal for further targeted payments at those on benefits would make a major difference this winter. He has suggested spending around another £5 billion in this way, which would broadly be sufficient to provide a second round of £650 Cost of Living Payments to the 7.3 million households on means tested benefits. This is the most effective way of targeting support quickly at those on lower incomes and there is a strong case for it playing a role this winter. But there are challenges with this approach that grow with the scale of the problem itself. First, the more we rely on this mechanism to target support, the bigger problem the very large cliff edge between those who do and don't get support becomes: someone earning just £1 too much to qualify for Universal Credit risks missing out on £1,300 of support this year. This is a material problem when just over 4 in 10 of the poorest fifth of the population do not receive means-tested benefits. And second such lump sum payments per households take no account of variation in actual energy bill rises. An extra £650 grant would fall short of covering the increase in this winter's bills compared to those expected back in May by £270 for a quarter of households in the bottom fifth, while another quarter would actually gain by over £300. The more we rely on these payments as costs rise further, the bigger this mismatch between need and support becomes.

In contrast to this continuity of approach, the main opposition parties have now all proposed a radically different way forward: directly reducing the cost of energy for everyone. The case for this approach is that it can be delivered, would have a large impact and would very closely relate the amount of support to need in the form of energy bill rises. However, by doing nothing to target support by household income the approach would be very expensive, give marginally more help to richer than poorer households, and blunt incentives that we would be more worried about for higher income households to reduce consumption. For example, the Labour Party's proposal to cap prices at the current price cap level of £1,971 would cost £36 billion this winter, and potentially a further £64 billion if continued through 2023-24, with the richest fifth of households gaining more from this policy in 6 months than they would in a year of cancelling the National Insurance rise.

We can do better this winter

The new Prime Minister will have to finalise a new support package for households (and some businesses) within weeks of entering Downing Street. That will be hard, not least given wider calls on both attention and fiscal resources (be that promised tax cuts or the cost pressures facing public services). But guided by the twin objectives of better

matching support to need (in terms of the scale of energy bill rises) and ability to cope (in terms of household incomes) they can do better than current proposals.

To do better within the constraints of the current approach of targeted payments to those on benefits, the size of such payments should be linked to household size – a key, but far from perfect, proxy for energy usage. This is deliverable, with benefit claims telling us the number of adults and children in each household, and would remain highly progressive. A flat rate payment of £790 to those on benefits would be required to match the average increase in energy costs this winter compared to expectations in May (for a cost of £6.2 billion). For a similar cost, the Government could provide a £600 fixed payment for a single adult on means-tested benefits, plus £200 for an additional adult and £100 for each child in the home. This would ensure that, on average, the level of support would match that required by different-sized families, a major improvement on the current approach. However, it would still leave the vast majority of households in the bottom income quintile receiving too little or too much support (with more than 8 in 10 seeing a mismatch of over £100 this winter), because there is such huge variation in people's properties, as well as their family size.

To get closer to matching the very different needs of households would require more radical policy shifts. Using the same eligibility (means-tested benefits) but for access to a social tariff that reduced bills, rather than lump-sum payments, would do so. Providing a 30 per cent bill reduction would be sufficient to address the increase in this winter's bills relative to those expected back in May, with support almost perfectly targeted at lower income households' specific cost rises (for a cost of around £6 billion). With DWP benefit entitlement data now being used to allow broadband companies to target social tariffs, it should be feasible to carry out a similar approach for implementing an energy social tariff automatically for many households.

While this would improve the targeting of need and remain highly progressive, it would retain the problem of an acute cliff edge based on whether you qualify for any benefits or not, and the scale of the problem is now so large that support will need to be extended to a broader group. Doing so is far from straightforward, given the need to create a new means test outside the benefits system. But it would not be impossible and should be considered given the scale of the crisis facing the country. As an example, extending that 30 per cent bill reduction to all households where no-one earns more than £25,000, and a 12 per cent reduction to households where no-one earns over £40,000 would result in 94 per cent of the poorest half of the population benefitting (vs 45 per cent if entitlement was limited to those on benefits), at a cost of £15.4 billion. Rough justice would remain in the system and some fraud would be inevitable. The Government would need to commit significant resources to using HM Revenue and Customs' real-time earnings data to give

energy companies a decision on whether those applying for the social tariff, but who weren't on benefits, were entitled.

This approach provides a good combination of targeting both energy usage and income, doing both through energy bills themselves. However, an administratively – but not politically – easier way of achieving a broadly similar distributional result would be to make the bill reduction universal (at the price of reducing the incentive for higher income households to cut consumption) but tax back the gains from higher income households: the giveaway part of the package would target need well and the takeaway would target income well (reducing the impact of the package in leading to the Bank further raising interest rates). As an example, a 30 per cent bill reduction on energy bills this winter combined with a 1 per cent increase in all income tax rates would see the large costs of £23.5 billion for six months of support partially offset by a one-year tax increase of £9.5 billion with 60 per cent paid by the top fifth of households.

While tax rises are not currently in fashion, and some households would lose more from the tax rise than they gain from lower energy bills, there are plenty of precedents for solidarity taxes of this form when geopolitics (most often wars) leads to collective sacrifice by households: top income tax rates rose in both world wars. An alternative option for a Liz Truss-led government that was totally opposed to any new tax rises would be to keep the National Insurance rise, at least while support for energy bills was needed. Windfall taxes also have an important role to play, but many of today's windfalls on selling fossil fuels are accruing to companies outside the UK as well as inside, so no windfall tax (or nationalisation programme) could ever capture all the surplus profits. Making energy bills vaguely affordable for low-to-middle income households will require contributions from higher earners today, or all taxpayers tomorrow as borrowing takes the strain. These are the choices that the country becoming poorer place on us.

We must worry about tomorrow as well as today

This radical approach isn't the normal answer that economists prescribe in the face of small rises in energy bills, and nor should it be the UK's long term one. There is huge uncertainty about the future path of energy prices, but whatever the future of global energy prices holds we know the time is long past to accelerate the construction of additional renewable and nuclear generation capacity, reform our market to delink the price of electricity from that of gas, and make greater energy efficiency – especially of our leaky housing stock – a policy priority. If prices do remain higher for longer, borrowing to pay for the costs of our energy consumption is not a sustainable solution, and households will have to face those higher costs. That in turn should prompt a recognition

that a country with higher costs of essentials is one that will require a higher income floor, reinforcing how crucial it is that a double-digit uprating of benefits goes ahead as planned in April.

Conclusions

The challenge facing us this winter is huge, and so is the policy response required. The benefits system has a huge role to play – with targeted payments already in train crucial to protecting those worst affected. But the increase in the scale of the crisis mean that combining this with more radical approaches now looks all but inevitable. Big bill reductions combined with solidarity taxes, or throwing the kitchen sink at a brand-new social tariff scheme, should be the focus for whoever becomes the next Prime Minister. A difficult winter for them, and the whole country, lies ahead.

The price of energy is set to soar this winter

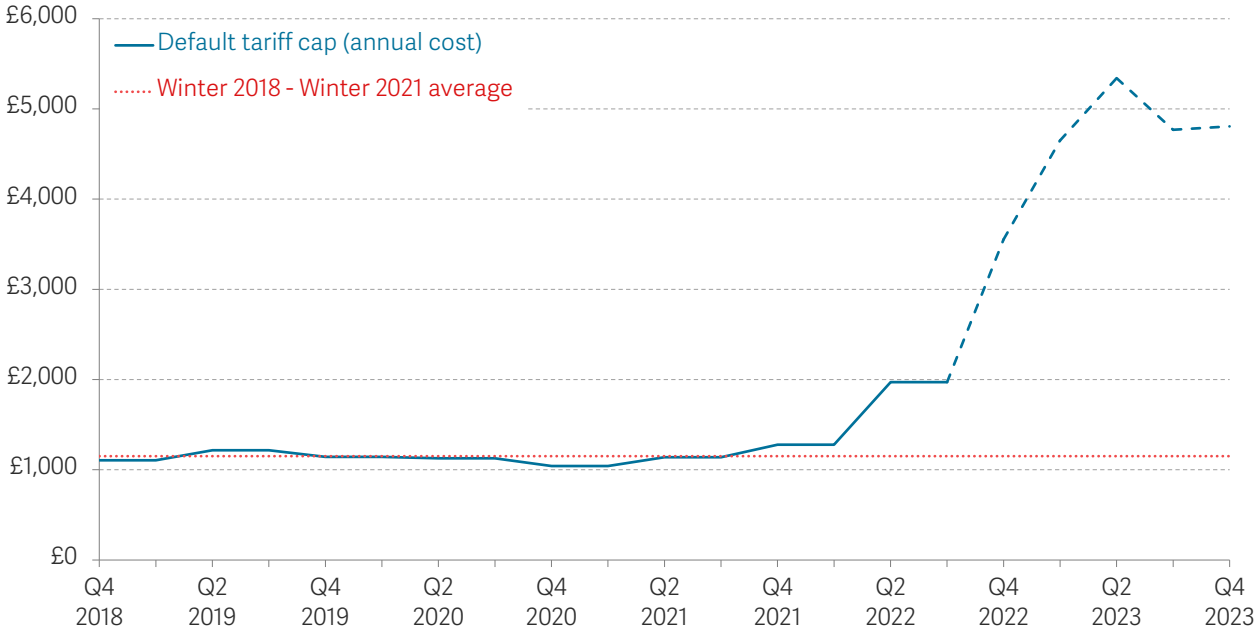
Britain is in the midst of an unprecedented energy-price rise. Ever-climbing gas prices (wholesale futures contracts for this winter topped £6 per therm in August compared with 73 pence a year earlier) mean that, without further government intervention, typical annual dual fuel energy bills are estimated to reach £3,554 in Q4 2022 before rising yet higher still to £4,670 in Q1 2023, and £5,341 in Q2 2023 (Figure 1).[1] Estimates for 2023 are, of course, incredibly uncertain and could change in either direction, but they make clear that there is a huge problem coming in the months ahead.

The new price cap level, set to be confirmed on Friday August 26th, will confirm record levels for energy bills, and comes just six months after a then-unprecedented 54 per cent increase in the price cap in Q2 this year. The relentless upward march of energy costs, therefore, will be comfortably the most pressing issue facing the new Prime Minister when they assume power.[2]

1 Cornwall Insight, Final predictions for October's price cap, August 2022. All energy use figures in this report, unless otherwise stated, are for households with typical consumption of 12,000 kWh gas and 2,900 kWh electricity, in line with Ofgem Typical Domestic Consumption Values (TDCV) figures.
2 The inflated price of energy poses a problem for households, businesses and other organisations, but this note focused on the direct implications for households.

FIGURE 1: **Forecasts for energy bills continue to reach new heights**

Historical and forecast annualised default tariff cap costs, for a household with typical usage paying by direct debit: GB



NOTES: Figures are presented on an annualised basis and for households with a typical consumption (TDCV) of 2,900 kWh of electricity and 12,000 kWh of gas.
SOURCE: Ofgem, Cornwall Insight.

High prices are about to collide with high energy use

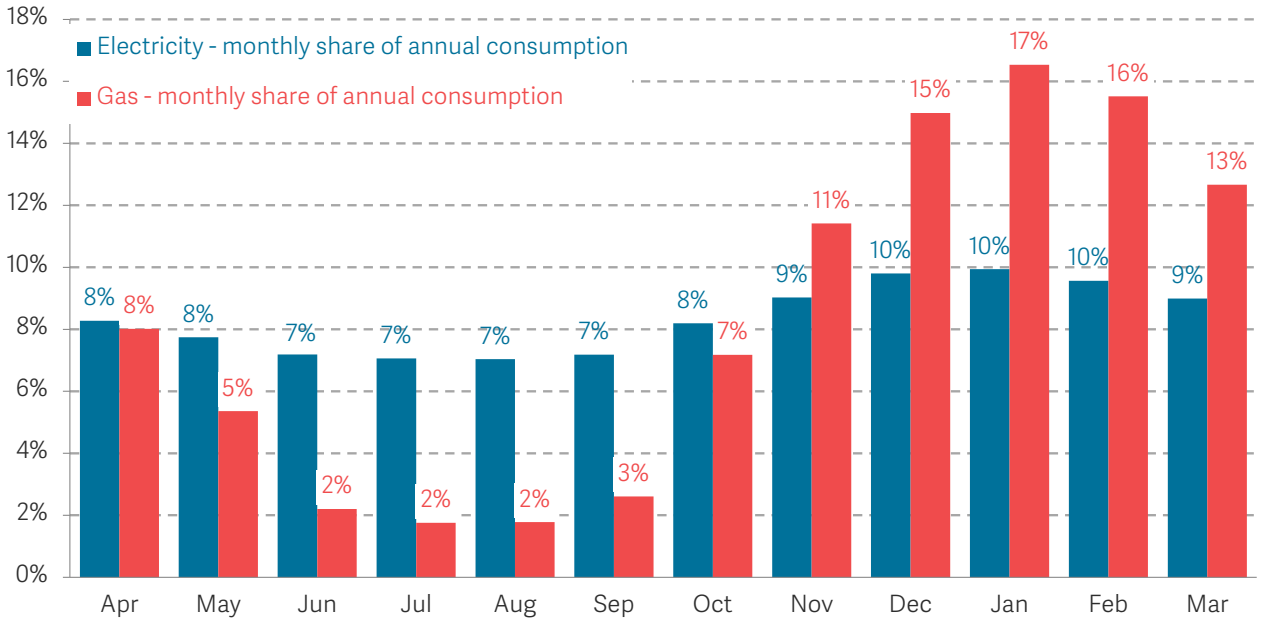
Recent amendments to the price cap methodology includes a move to more frequent (quarterly) changes, implemented mainly to reduce wholesale market risk borne by energy suppliers (and therefore reducing the risk of firm failure, which would inevitably lead to sizeable costs recouped through the energy system). The flip side is that households are now more swiftly exposed to changes in the wholesale cost of energy, with households facing two large rises in the retail price of energy just as their energy use rises for the colder months. As Figure 2 shows, 78 per cent of annual gas demand occurs between October-March, with just under half in the January-March period, when the price of gas is forecast to reach its highest level ever.[3]

Combining usage patterns in Figure 2 with forecasts for the annualised price cap in Figure 1 highlights the crux of the problem coming this winter: the combination of high energy use and high energy costs (see Figure 3).

3 Smart Energy Research Lab (SERL) data comprises half-hourly smart meter data for more than 13,000 households across Great Britain, recruited proportionally to the number of households in different GB regions and different Index of Multiple Deprivation quintiles. Distributions of mean and median energy (gas and electricity) use were collected in three waves covering 2018-2021, with averages across the years used in this report. For more information on SERL data see: Smart Energy Research Lab (SERL) Statistical Reports: Volume 1 April 2022.

FIGURE 2: **The majority of household energy use occurs in the winter, so will coincide with coming jumps in prices**

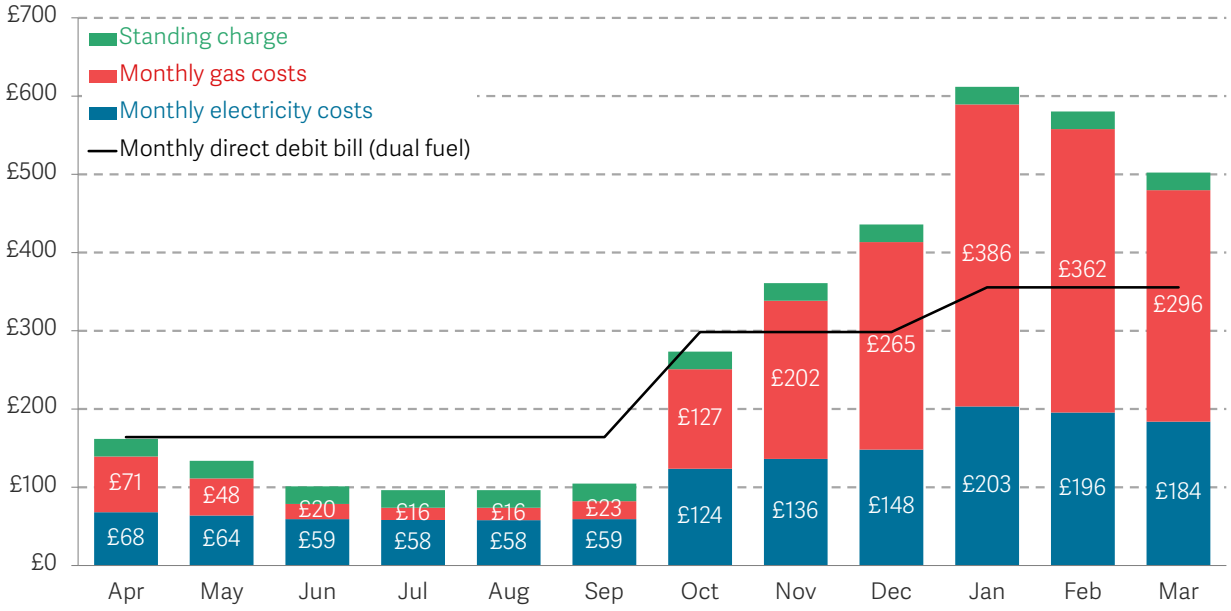
Estimated monthly share of annual domestic gas and electricity use: GB



Source: RF analysis of UCL, Smart Energy Research Lab data.

FIGURE 3: **The amount of energy families use at home is set to increase dramatically, just as the price of energy rockets**

Monthly cost of domestic gas and electricity used by a typical household, and monthly dual fuel bills under notional direct debit payments: GB, April 2022 to March 2023

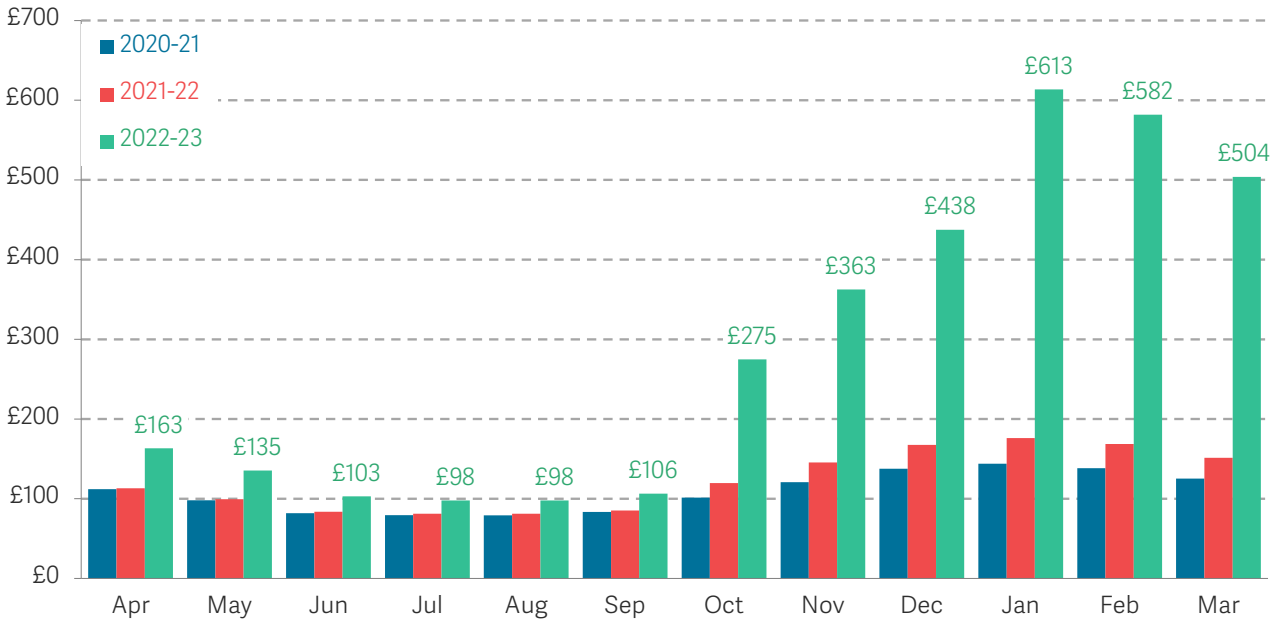


NOTES: Monthly consumption levels determined from Ofgem typical consumption (TDCV) levels of 2,900 kWh of electricity per annum and 12,000 kWh of gas, and historical smart meter data, as such they do not account for likely changes in behaviour associated with high prices this winter. Direct debit payments assumed to be 1/12 of the annual bill associated with each price cap level, although will differ by supplier depending on when payment levels are updated and by consumer credit or debit balances. Figures do not account for £400 Energy Bill Rebate, or payments through other government support schemes.
SOURCE: RF analysis of Ofgem, Cornwall Insight, UCL Smart Energy Research Lab data.

For a family maintaining the typical energy use of households in past years', spending on electricity and gas over the 2022-23 financial year will cost £3,478, compared with £1,472 in 2021-22 and £1,301 in 2020-21. This winter alone, a typical household will accrue energy costs of £2,774 – an average of £462 per month. This would be £308 per month higher than winter 2021 (see Figure 4). In January alone, energy costs are set to be more than £600.[4]

FIGURE 4: **The rise in monthly energy costs this winter will be colossal compared to previous years**

Monthly energy costs and bills for a typical household: GB, 2020-21 to 2022-23



NOTES: Monthly consumption levels determined from Ofgem typical consumption (TDCV) levels of 2,900 kWh of electricity per annum and 12,000 kWh of gas, and historical smart meter data, as such they do not account for likely changes in behaviour associated with high prices this winter or from behavioural changes during pandemic years. Figures do not account for £400 Energy Bill Rebate, or payments through other government support schemes.
SOURCE: RF analysis of Ofgem, Cornwall Insight, UCL Smart Energy Research Lab data.

The rise in the Ofgem energy price cap will, however, not affect everyone. It, and therefore the imminent jump in energy bills, does not apply to households in Northern Ireland (Box 1). It also does not limit the price of domestic heating oil, currently used by about 4 per cent of English properties (that are predominantly found in rural areas and of low energy efficiency standards) who have been weathering the storm of high energy prices for months.[5] Finally, Ofgem's price cap does not affect non-domestic customers; these have been exposed to significant price fluctuations during 2022. Many of these consumers

4 RF estimates are that, in 2022-23, 4 per cent of households will have an equivalised after housing costs income of less than £7,200 per year and will therefore see all of their annual disposable spending taken up by energy bills should they remain at January's level. 18 per cent of households will have an equivalised after housing costs income of less than £14,400, whereby £600 per month energy bills will comprise half of household spending.

5 Just 6 per cent of oil heated homes in England have an EPC rating of C or above, Source: RF analysis of English Housing Survey. Households dependent on heating oil to stay warm have been facing higher prices during 2022 than those using gas, and are more vulnerable to price spikes, as seen in early 2022, when heating oil prices more than doubled in two weeks.

will also face large increases in energy costs in Q4 2022 as this is a common time for commercial energy contracts to be renegotiated. We do not discuss the significant problems facing non-domestic users of energy in this note.[6]

BOX 1: Without price cap protection, households in Northern Ireland have been battered by the storm of high energy prices for months already

Ofgem's remit as a regulator does not extend across the Irish Sea, partly as the island of Ireland has a separate gas and electricity networks, and so the price cap does not apply in Northern Ireland. This lack of comparable protection with other parts of the UK means households in Northern Ireland will have been paying higher prices for energy throughout 2022, but on the flipside will not face a huge hike in October.

The issues Northern Ireland face extend beyond the regulatory. Seven in ten (68 per cent of) Northern Irish homes are heated by oil, which increased in price 2.5-fold in 14 days in February 2022 – a period in which gas costs were flat for (price-capped) British households and when cold weather means energy consumption is high. Just 24 per cent of homes in Northern Ireland, almost entirely in urban areas, are heated by gas but, without price cap protection, these have also been exposed to huge increases in wholesale costs in recent months. The nature of the housing stock also differs between Northern Ireland and Great Britain, with Northern Ireland having more energy-hungry detached houses and fewer low-demand flats then in Great Britain, as well as comparably poor levels of energy efficiency as seen in properties in the rest of the UK. As a result of these issues, and the lower average incomes in Northern Ireland, it has long faced higher rates of fuel poverty than the rest of the UK, affecting 22 per cent of households even before prices spiked.[7]

Making matters worse still, the lack of a functioning executive is hindering the payment of already-announced support schemes: devolved nations receive Government funding for the £400-per-household Energy Bill Support Scheme through the Barnett formula, but this is not currently being passed onto Northern Irish households. The UK Government is reportedly discussing whether this support can be delivered through other means, but there is an ever-shrinking window for the first payments to households be made in October, as is scheduled for the rest of the UK.

6 So far, no additional support has been announced to help businesses with their energy costs, although help for the most energy intensive industries is planned. For more, see: Government to consider further relief for energy intensive industries, Department for Business, Energy and Industrial Strategy, August 2022.

7 Fuel Poverty, Northern Ireland Department for Communities, accessed on 24 August 2022.

High energy bills will instigate cash-flow problems, that will be most concentrated in households with pre-payment meters

As Figure 4 shows, monthly energy costs for a typical household are set to jump by £169 from September to October, before more than doubling again to £613 (close to £20 per day) come January. The median disposable income of a households with a pre-payment meter is less than £1,250 per month,[8] therefore, come January, energy bills will consume just under half of these families' budgets (£613 would be 49 per cent of this, or 44 per cent accounting for the existing £67 a month energy bill rebate). This is simply unmanageable for many of the 4 million British families who pay energy bills via a pre-payment meter (PPM), especially as half (48 per cent) of these are in the lowest income quintile, and whose energy bills are not smoothed over multiple months as is the case for households paying by direct debit.[9] In fact, a £613 monthly bill would be more than the entire payment of Universal Credit for a couple without children (£526 a month), although a couple without children would probably consume slightly less energy than Ofgem's typical household.

High levels of indebtedness bring additional woe for PPM customers. 4 in 10 of households (38 per cent) who pay for pre-pay for gas, and 3 in 10 for electricity (29 per cent), have agreed debt repayment plans with suppliers, with additional costs to pay off this debt being taken off meter balances when additional credit is added.[10]

Even though this huge jump in costs will be partially smoothed for direct-debit customers (monthly direct debit costs will double from September to January), families still face a significant increase in expenditure on essentials, which for many will be money that needs to be found in other parts of household budgets, or by leaning on coping strategies such as borrowing money from friends and family.

Following a decade of economic stagnation, low-income households are more vulnerable to the huge rise in energy prices that is coming

More than a decade of weak growth combined with high inequality means that the UK's poorer households are particularly exposed to income or spending shocks.[11] Low-income households spent 59 per cent of their incomes on 'essentials' in 2019 – that is, items such

8 The median annual equivalised after housing costs income of an English household that pays for electricity via a pre-payment meter is £1,243, Source: RF analysis of English Housing Survey data.

9 48 per cent of English households who pay for electricity by a pre-payment meter are in the lowest equivalised after housing costs income quintile, RF analysis of English Housing Survey data shows. The Labour Party have argued that the Government should subsidise energy supply companies to reduce the unit cost disparity between PPM and direct debit customers: under the current price cap, this additional cost amounts to £46 per year for a typical household, although Labour estimate that this would increase to £100 per year when prices increase in January. While certainly welcome, a £100 annualised saving makes only a small dent in the financial challenges facing PPM customers this winter. All figures in this section assume that pre-payment meter customers consume as much energy as the typical household, in line with Ofgem's price cap methdology.

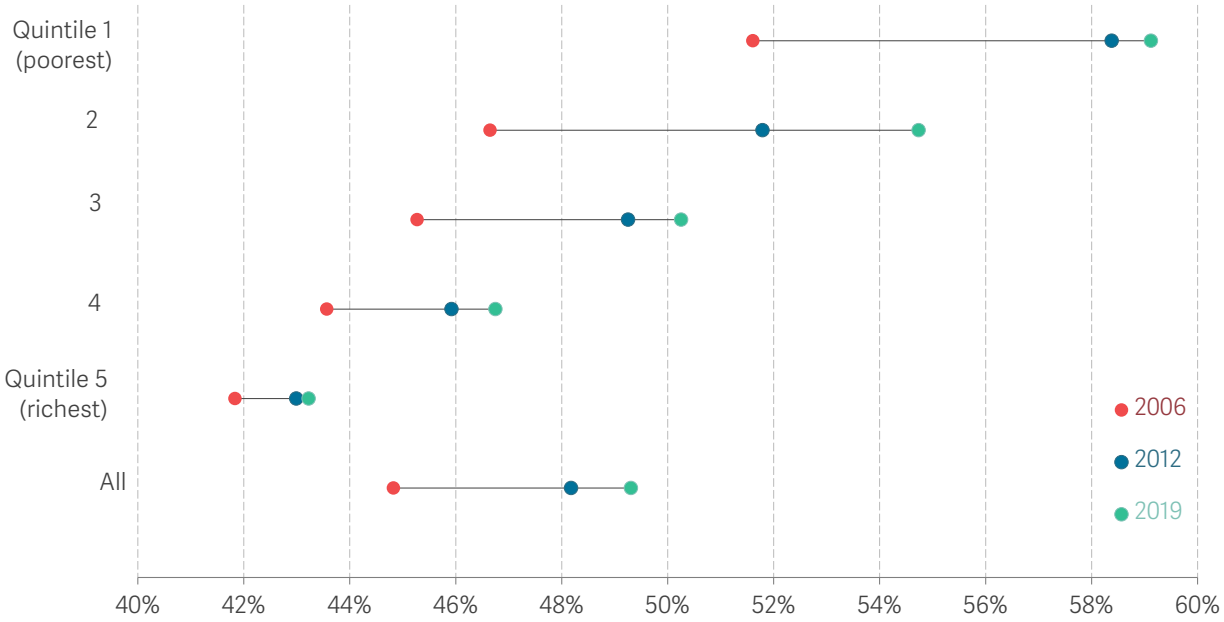
10 Households forcibly moved to PPMs after accruing debts on a standard credit account will generally agree a repayment plan with suppliers.

11 The Resolution Foundation, Stagnation Nation: Navigating a route to a fairer and more prosperous Britain, July 2022.

as food, fuel, clothes and transport – up from 52 per cent in 2006. This is compared with the richest quintile whose spending on essentials increased just one percentage point – from 42 per cent to 43 per cent in the same time period (see Figure 5). With so much of their spending going on essentials, the poorest households have little room to adjust outgoings or economise in the face of rising energy bills.

FIGURE 5: **The proportion of total spending that goes on essential items has been increasing sharply for lower-income households**

Proportion of equivalised non-housing household consumption spent on 'essentials', by quintile of the working age equivalised net household income distribution: UK



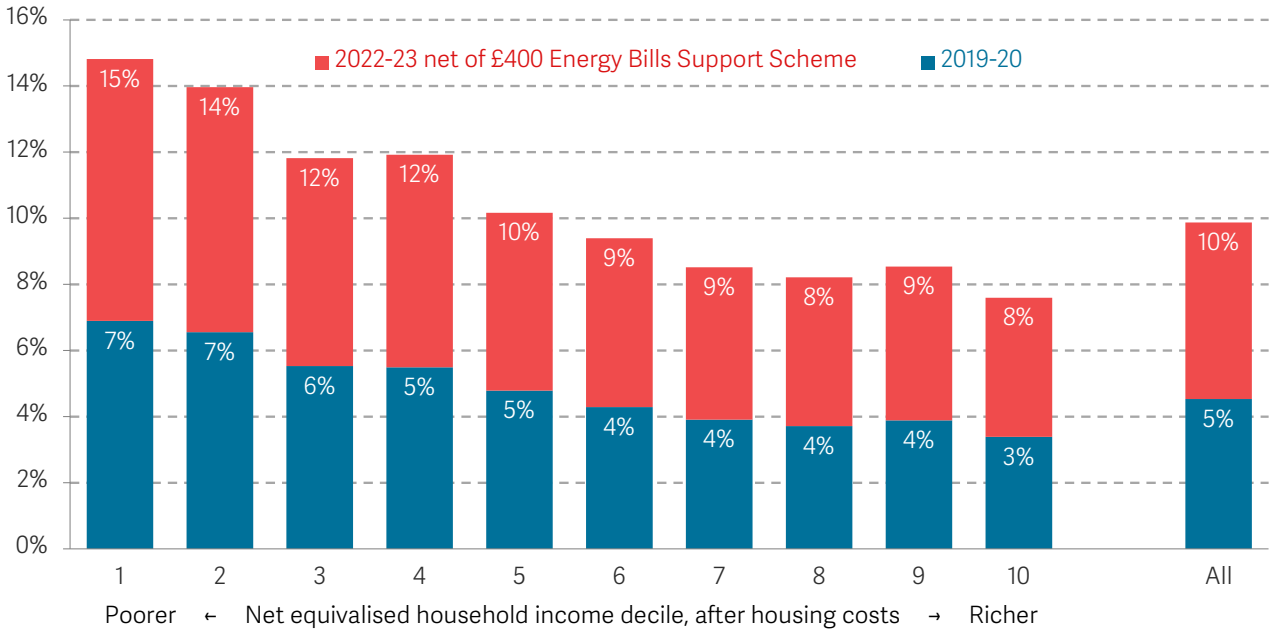
NOTES: 'Essentials' covers food, fuel, clothing and transport. Distribution calculated on the basis of income after housing costs. We present trends in consumption for each individual, rather than just for the head of the household.
SOURCE: Rf analysis of ONS, Living Costs and Food Survey.

Based on the forecasts for Ofgem's price cap shown in Figure 1, the share of household spending on energy could increase to 14 per cent for the bottom income quintile averaged over 2022-23, even accounting for the £400 Energy Bill discount due to be made over the winter (see Figure 6). The bottom five income deciles (50 per cent of households) will spend more than 10 per cent of their budgets on energy bills; this has increased from just the lowest two deciles spending just 7 per cent of their budgets on energy in 2019-20 (and with no decile group spending more than 10 per cent of their budget on energy bills in 2019-20, on average). This will put much more pressure on low-income households: in previous work, we showed that households in the bottom two deciles will, on average, need to reduce their spending on clothes, furniture, leisure, restaurants, holidays and other plausibly non-essential items by one-quarter (24 per cent) to able to afford the higher energy bills this winter compared to what they were expected

to be back in May (although this figure will now be higher on the most recent forecast of the price cap).[12] Higher-income households, meanwhile, will only have to cut back one-tenth of their broadly-defined discretionary spending.

FIGURE 6: **Even with existing government support, energy bills in 2022-23 are set to take up twice as much of household budgets than in pre-Covid years**

Household spending on energy bills as a share of total expenditure, by equivalised after housing costs income decile: GB



NOTES: 2022-23 energy and total spending are net of £400 Energy Bills Support Scheme. Energy bills are assumed to rise in line with the change in the price cap in April 2022; October 2022 and January 2022 forecasts. Non-energy consumption uprated in line with COICOP inflation indices, as uprated by August Bank of England forecasts. Assumes no behavioural change in consumption. Excludes households with no spending on gas or electricity.
SOURCE: RF analysis of ONS, Living Costs and Food Survey; Bank of England, MPR, Cornwall Insight.

Furthermore, low-to-middle income households are struggling with other aspects of inflation – such as food inflation – that are disproportionately affecting them. The lowest income decile spends 11 per cent of their budget on food compared to 7.3 per cent for the top decile.[13] Food prices rose by 12.7 per cent in July, the highest monthly increase since May 2001.[14] Many wealthier households will weather the storm by falling back on savings, but this is much less likely to be an option for those on lower incomes

Another outcome of the weak growth in living standards over the 2010s is that many households lack the financial resilience to cope with unexpected shocks. In the run up to the pandemic, less than 25 per cent of adults said that they had enough savings to

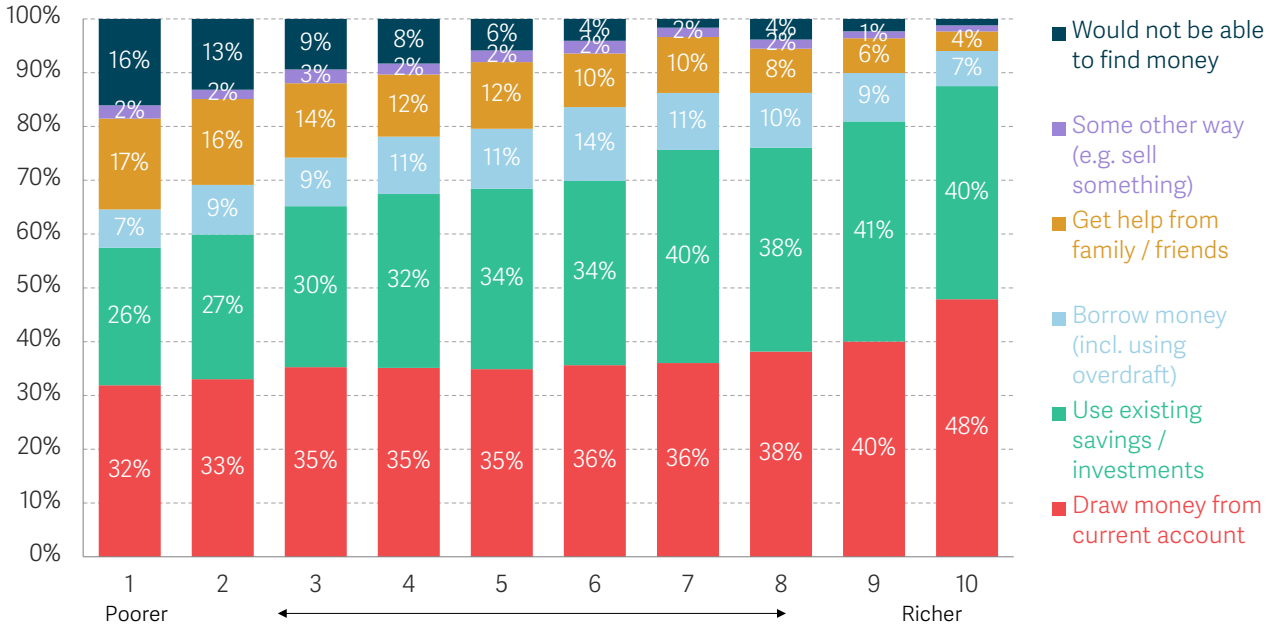
12 K Handscomb & J Marshall, Cutting back to keep warm, The Resolution Foundation, August 2022.
13 ONS, Inflation and the cost of living for UK households, overview: June 2022, June 2022.
14 ONS, Consumer Prices, August 2022.

manage on for a month if their income stopped,[15] and more than two fifths of people in the lowest income quintile could not draw money from their current account or use existing savings to cover an unexpected major expense (see Figure 7). One-in-six said they would need to turn to friends and family, but that seems less likely to be available as a strategy this winter, as higher energy bills hit us all.

Concerningly, even in 2020, 16 per cent of people in the lowest-income decile would not be able to find the money at all for an unexpected major expense. Although aggregate savings rose during the pandemic, there was a clear distributional slant to this, with higher-income households being much more likely to repay debt or increase saving, and those lower-income households who faced labour market disruption in the pandemic being more likely to see debts increase. This lack of financial resilience will only have worsened since then, with real-terms average earnings now falling at the fastest rate since 1977,[16] and with the pattern of price rises bearing down more heavily on low-income households than high-income households.[17]

FIGURE 7: **Asset holdings have a direct connection to how people cope with income falls**

Share of families reporting how they would find money for an unexpected major expense, by household income decile, 2018-20: GB



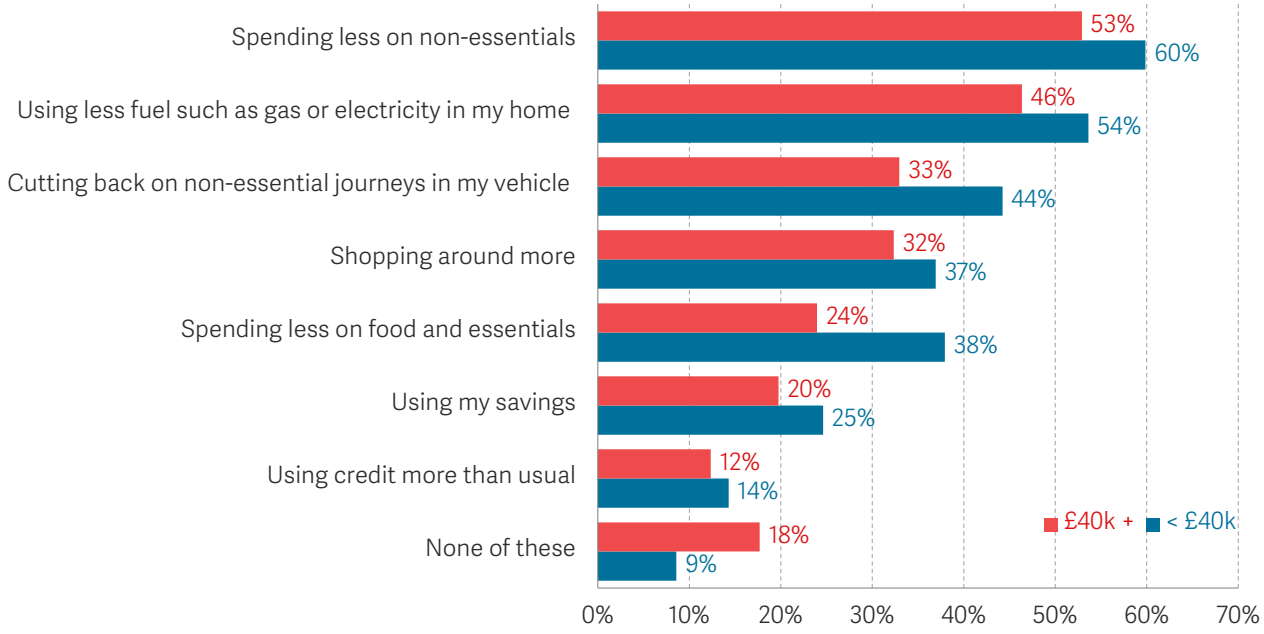
NOTES: Family averages are calculated using household reference person only. Missing labels: Decile 7 would not be able to find money is 2 per cent; Decile 9 would not be able to find money is 2 per cent; Decile 10 would not be able to find money is 1 per cent some other way (e.g. sell something) is 1 per cent.
SOURCE: RF analysis of ONS, Wealth and Assets Survey.

15 M Broome & J Leslie, Arrears fears, The Resolution Foundation, July 2022.
16 N Cominetti & H Slaughter, The labour market is making history for the wrong reasons, The Resolution Foundation, August 2022.
17 For example, see: J Leslie, Cap off: Understanding the April 2022 inflation release, The Resolution Foundation, May 2022 and ONS, CPIH-consistent inflation rate estimates for UK household groups: April to June 2022 , August 2022.

Even before the price rise this autumn, more households were experiencing financial distress. Between March and June 2022, more than 88 per cent of people reported that their cost of living had increased compared with the previous month,[18] and between April and May 2022 more than three quarters of people said that they were worried about the cost of living.[19] Those on low-to-middle incomes are more likely to be making changes to save money, and it is worrying that, even this Spring, 38 per cent of people with personal incomes below £40,000 were spending less on food and other essentials (compared with 24 per cent of those with higher incomes) (see Figure 8).

FIGURE 8: **Households, and particularly those on lower incomes, are already spending less on essentials, non-essentials and fuel**

Actions taken due to their cost of living increasing by personal income if less than £40k or greater than £40k: GB, March to June 2022



NOTES: Survey conducted between 30 March to 19 June 2022.
SOURCE: RF analysis of ONS, Impact of increased cost of living on adults across Great Britain, August 2022.

Given that we are already observing behavioural changes in the face of the cost of living crisis, it is extremely likely that households won't maintain previous levels of energy use over the winter months, with potentially very serious implications. In the most recent pre-Covid winter, estimates suggest there were around 8,500 excess deaths resulting from cold homes – a figure that could very easily follow energy prices to much higher levels.[20]

18 ONS, Impact of increased cost of living on adults across Great Britain, August 2022.
19 ONS, Worries about the rising cost of living: Great Britain, June 2022.
20 For more, see: K Handscomb and J Marshall, Cutting back to keep warm, Resolution Foundation, August 2022.

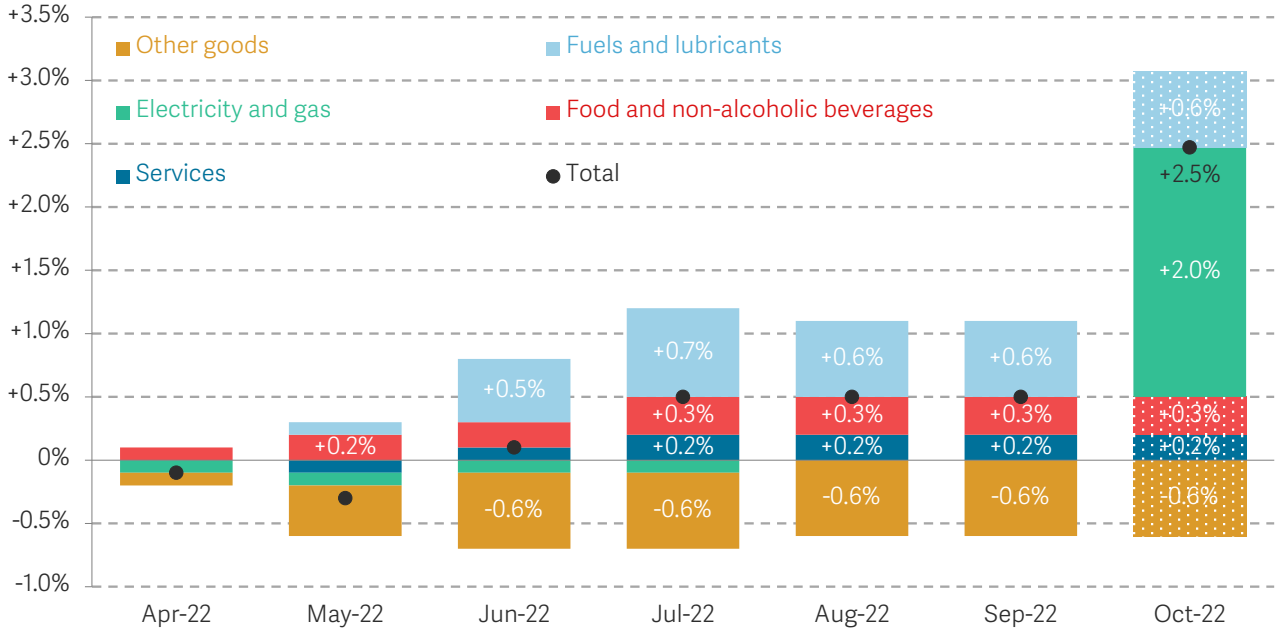
Together, this underlines that low-income households need to be the focus of our attention, as they lack the coping strategies available to higher-income households, whether that be reducing non-essentials or using savings.

Policy makers need to act to prevent a winter of discontent

The most recent Government package to help households with rising cost of living was announced in May 2022 (see Box 2), when winter energy prices were expected to be an annualised £2,800, and the Bank were expecting inflation to peak in 10.4 per cent in Q4 of 2022.[21] Only three months later, the Bank's latest forecast is for inflation to peak in October at 13.3 per cent, and Cornwall Insight forecasts energy prices reaching an annualised £4,650 come Q1 2023.[22] Of the nearly 2.5 percentage point rise in the expected rate of inflation, 2.0 percentage points comes from households' use of gas and electricity (see Figure 9).[23]

FIGURE 9: **Four-fifths of the inflationary surprise since May comes directly from households' gas and electricity bills**

Change in the Bank of England's inflation forecast for October 2022, by component: May 2022 to August 2022



NOTES: The Bank of England's short-term inflation forecast published in May covered the period April to September. The August forecast covers the period from July. As October was beyond the period published in May, we keep the forecast change for the non-electricity and gas components fixed from September; for electricity and gas we compute the implied change in the forecast by comparing Cornwall Insight's forecast for the energy price cap in October, as made around the time of the Bank of England's May forecast, and the Bank of England's latest estimate of the energy price cap of "around £3,500".
SOURCE: RF analysis of Bank of England, Monetary Policy Report (May 2022 and August 2022); Cornwall Insight.

21 See: HM Treasury, Cost of living support factsheet, May 2022 and Bank of England, Monetary Policy Report, May 2022.
22 Cornwall Insight, Final predictions for October's Price Cap, August 2022.
23 The Bank's forecast pre-dates the inflation figures for July 2022: see ONS, Consumer price inflation, UK.

Should the typical family maintain past years' levels of energy use, spending on electricity and gas over the winter of 2022-23 will be £2,774 – an average of £462 per month. This is an increase of 47 per cent (£881) on what was expected given the forecasts in May 2022.

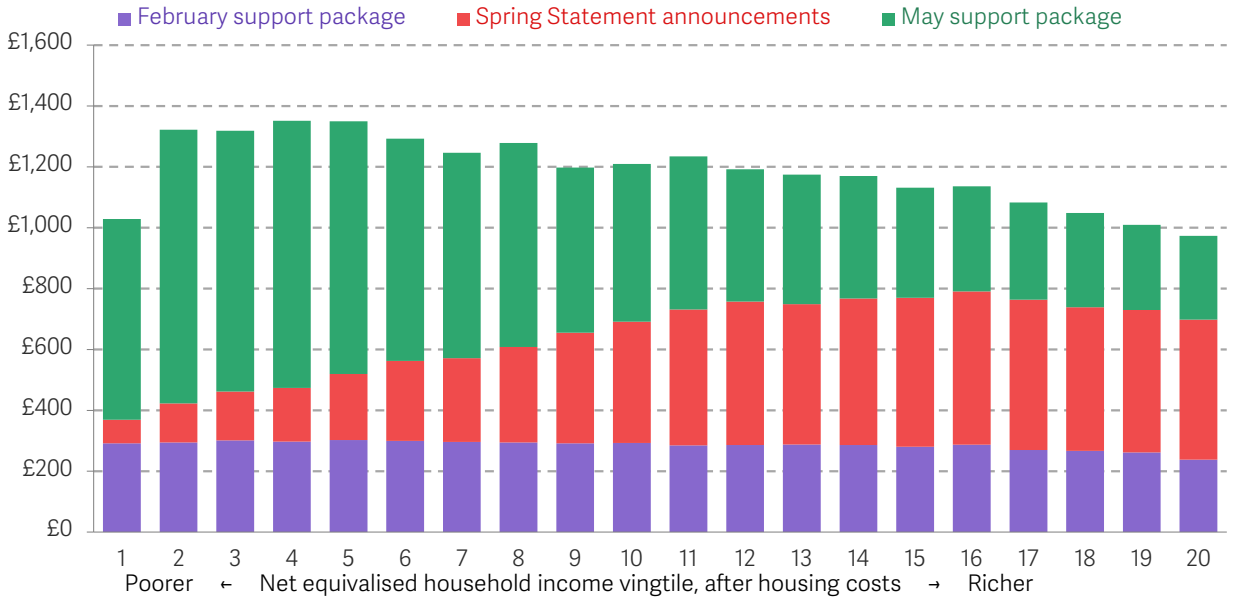
As we discuss below, failing to provide additional support in the face of price rises on this scale would lead to widespread hardship and destitution with households risking being cut off from the energy system, and millions more will fall into arrears that not only harm personal finances but also brings with it a systemic risk to the energy sector as a whole.

BOX 2: **What are the current Government's responses to the rise in the price cap?**

The Government has intervened on three occasions this year to support households with higher energy costs, with spending on these measures amounting to £30 billion.

FIGURE 10: **The combined effects of recent policy support are poorly targeted**

Annual gains from all measures announced in 2022, by equivalised after housing cost household income vigintile: 2022-23



NOTES: Includes the £150 Council Tax Rebate and original £200 Energy Bills Support announced in February; the 5p Fuel Duty cut and raising of the National Insurance Primary Threshold announced during the Spring Statement; and the £650 cost-of-living payment for families on means-tested benefits (except Housing Benefit), the £150 disability cost-of-living payment, the additional £300 for the pensioner Winter Fuel Payment, and the additional £200 for the Energy Bills Support scheme.
SOURCE: RF analysis of IPPR Tax-Benefit Model; DWP, Households Below Average Income 2019-20; ONS, Living Costs and Food Survey 2019-20.

In February it was announced that all households were to receive a £200 energy bill discount in October (to be repaid over 4 years), and that all households (except students) living in properties with a council tax band of A-D would receive a £150 council tax rebate.

In March's Spring Statement an additional £500 million for the Household Support Fund was announced, on top of the £500 million unveiled in 2021. Also announced was a 5 pence per litre discount on fuel duty.

A third intervention in May 2022 was more comprehensive, doubling the £200 loan to £400 (due to be provided as equal payments over the six winter months) and cancelling the need to pay it back, introducing £650 payments (to be made over two lump sum grants) to households on means-tested benefits, an additional £300 for all pensioner households, and an extra £150 to individuals in receipt of a disability benefit.

As shown in Figure 10, the gains from these measures are fairly evenly spread across the distribution. Combined, these measures did offset the majority of the increase in energy costs for low-income households on average, but this was calibrated against the expectation that the typical energy bill would be £2,800 this winter.[24]

Pre-payment meter customers face a winter in the cold and in the dark

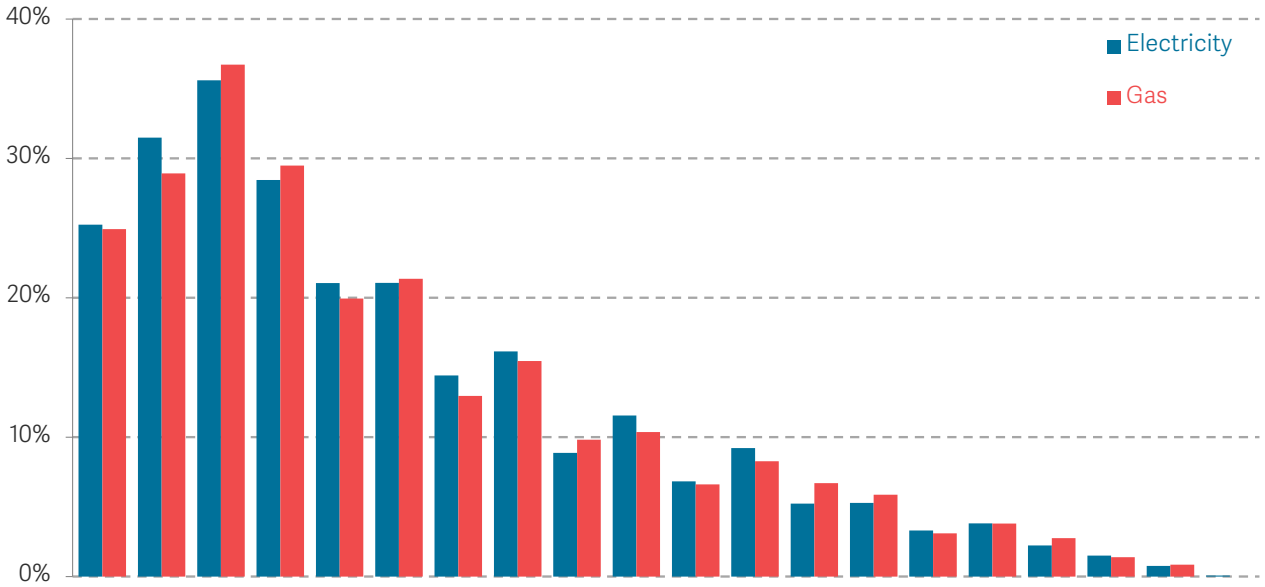
A clear priority should be helping PPM customers with increases in monthly costs that will – should support not be forthcoming – consume nearly half of median monthly disposable incomes. This is simply not affordable, with the only alternative for millions of impacted households to run PPM credit balances down to zero and 'self-disconnect' at the time of year when energy consumption is most important.

PPM customers being heavily concentrated among lower-income groups only adds urgency to this situation, with 30 per cent of the poorest fifth of households in England PPM customers, compared with just 2 per cent of the richest fifth, as shown in Figure 11.

24 For a detailed assessment of the Government's interventions, see: T Bell et al., Back on Target, Resolution Foundation, May 2022.

FIGURE 11: **Poorer households are much more likely to be on pre-payment meters and therefore to struggle with the unprecedented jump in monthly costs**

Proportion of households paying for electricity and gas via a pre-payment meter, by equivalised after housing costs income vigintile: England, 2019-20



NOTES: Includes both smart and non-smart pre-payment meters.
SOURCE: RF analysis of DLUHC, English Housing Survey.

As if things weren't bad enough already for PPM customers, there are – by design – limited credit options available. Those that do exist are typically limited to £5 or £20, sums that will go a lot less far when energy costs are high. This further increases the risk of PPM households sitting in the cold and the dark. Considering this heightened vulnerability, in addition to significant financial support, PPM customers' credit levels, top-up frequencies and levels of energy consumption should be monitored through the winter months, with proactive efforts from suppliers needed to support the households the most in need.

Unaffordable energy bills for millions of households will lead to widespread arrears and significant levels of energy debt

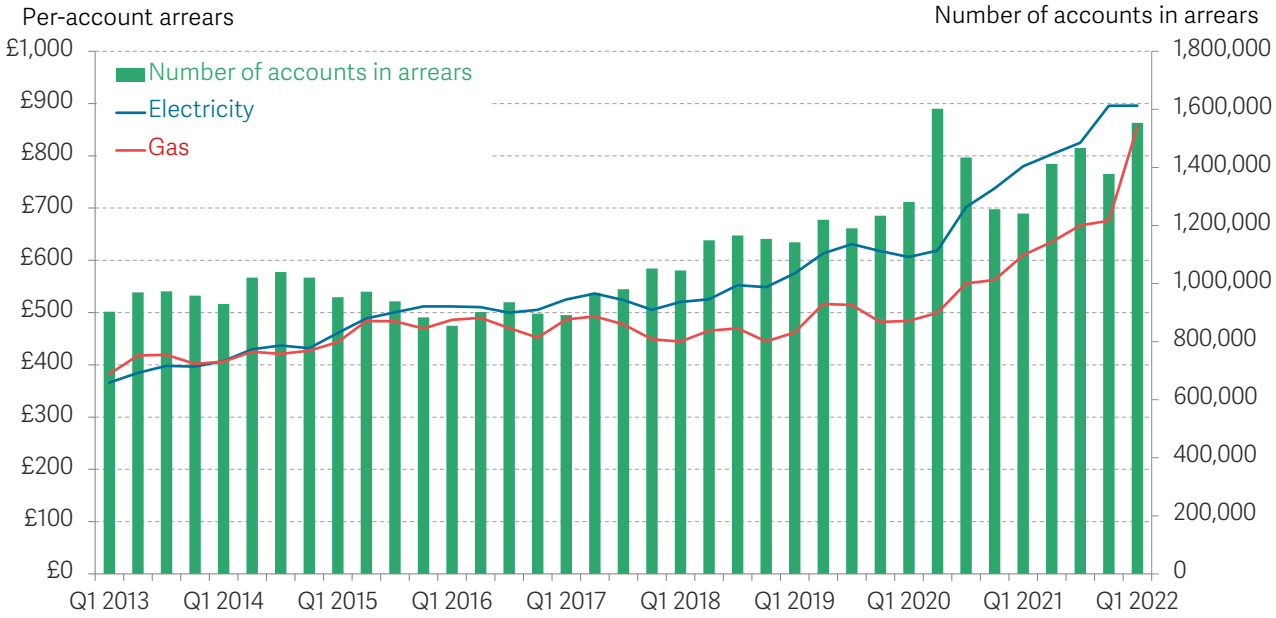
Arrears and late credit commitments are already building and will surge after the winter months as the costs that households face increase dramatically. The number of households behind on at least one household bill rose from 9 per cent in October 2021 to 14 per cent in June 2022, even before, as discussed, energy costs surge this winter.[25] In the energy sector alone, more than 1.5 million customer accounts were in arrears as of Q1 2022 (see Figure 12, but note that a given household can be in arrears on more than one account). This increase in bad debt – that for which there is no repayment plan agreed

25 J Evans & S Collard, Under Pressure: The financial wellbeing of UK households in June 2022, Financial Fairness Tracker, July 2022.

between customer and supplier – is particularly worrying in light of price increases since it was collected, and considering the inherent delays arising from the time it takes a for a household bill to be categorised as 'unpaid' and the account officially fall into arrears.[26]

FIGURE 12: **Energy arrears have been on an upward trend which has accelerated since 2020, worryingly preceding significant price cap increases**

Average real-terms level of energy debt for households in arrears, and number of customer accounts in arrears: GB



NOTES: Number of accounts in arrears includes both gas and electricity arrears, and therefore one household can be in arrears for two accounts. Figure does not account for household energy debt that is covered by repayment plans. A consumer is classified as being in arrears should a bill remain unpaid for 91 days, or if a supplier is notified that the consumer does not plan to pay bills issued in full.
SOURCE: RF analysis of Ofgem data.

A recent USwitch survey provided a glimpse into more recent developments that will cause wider concern going into the winter months.[27] It found that in July, almost a quarter of households were in debt to their supplier and 8 million more had no credit balances (typically built up by overpaying in summer months). Given that the majority of energy use comes in the winter, this will certainly lead through to more households falling behind on energy bills, with potentially damaging impacts on credit ratings. As

26 Energy suppliers classify an account as being in arrears if a bill is unpaid after 91 days, or if the supplier is informed that the bill will not be paid.

27 For more on Uswitch's survey see: UK households already owe £1.3 billion ahead of winter bill hikes, USwitch, August 2022. There are some notable differences between debt levels shown in Figure 12, which are based on customer data that energy suppliers provide to Ofgem, and that in the USwitch survey. Firstly, the Ofgem data shown is for arrears debt only, while USwitch does not clarify if its figures are for arrears debt, debt under repayment plans, or total debt. There are also differences in overall debt levels, with Ofgem Q1 2022 data showing £2.1 billion of domestic energy debt (across arrears and debt under repayment plans), significantly higher than the £1.3 billion total reported by USwitch. USwitch also report an average debt of £206 per indebted household, which is again much lower than figures provided by energy suppliers. Finally, the USwitch survey covers all of the UK, instead of only the GB households that fall under Ofgem's remit and are therefore protected by the Default Tariff Cap.

households increasingly struggle to pay their bills and credit commitments, we can expect there to be real knock-on effects on people's mental and physical health.[28]

Rising arrears can also, in principle, pose a risk to suppliers, although consolidation of the market into a smaller number of larger suppliers last winter has lessened this.[29],[30] If more energy supply companies do fail, this puts more costs onto the public purse: the OBR estimates that the cost of the Government taking control of Bulb energy, and its 1.6 million customers, will be £2.2 billion over two years,[31] and Citizen's Advice estimates that the total cost to the Government of last winter's bankruptcies is £4.6 billion to date.[32] In the worst-case scenario, should a larger firm go under – Ovo has five million customers, and British Gas 9 million – then the costs to the public purse could be far higher, meaning that inaction to support households this winter could cost the Government dearly.[33]

The policy objectives are clear, but hard

The most important task facing policy makers now is to intervene swiftly and in sufficient scale to prevent a winter of widespread hardship, destitution, and worse. But the choice of levers for delivering such support must be updated to reflect the sheer scale of what now lies ahead, the variation in its impact, and the reality that the Government cannot prevent rising energy prices making the UK poorer but can only decide who bears those costs and when.

So, supporting low-to-middle income families must remain a key goal this winter, reflecting the vast variation in the ability of higher- and lower-income households to cope with the huge rise in energy bills. With low-income households less able to dip into savings or respond to higher costs by investing in energy-saving measures, support should, in general, be targeted on those with lower incomes for whom the consequences of high prices would be severe.

But we need to think hard about how to best support families who are weathering these price increases. Energy need, and therefore bills, vary wildly depending on household

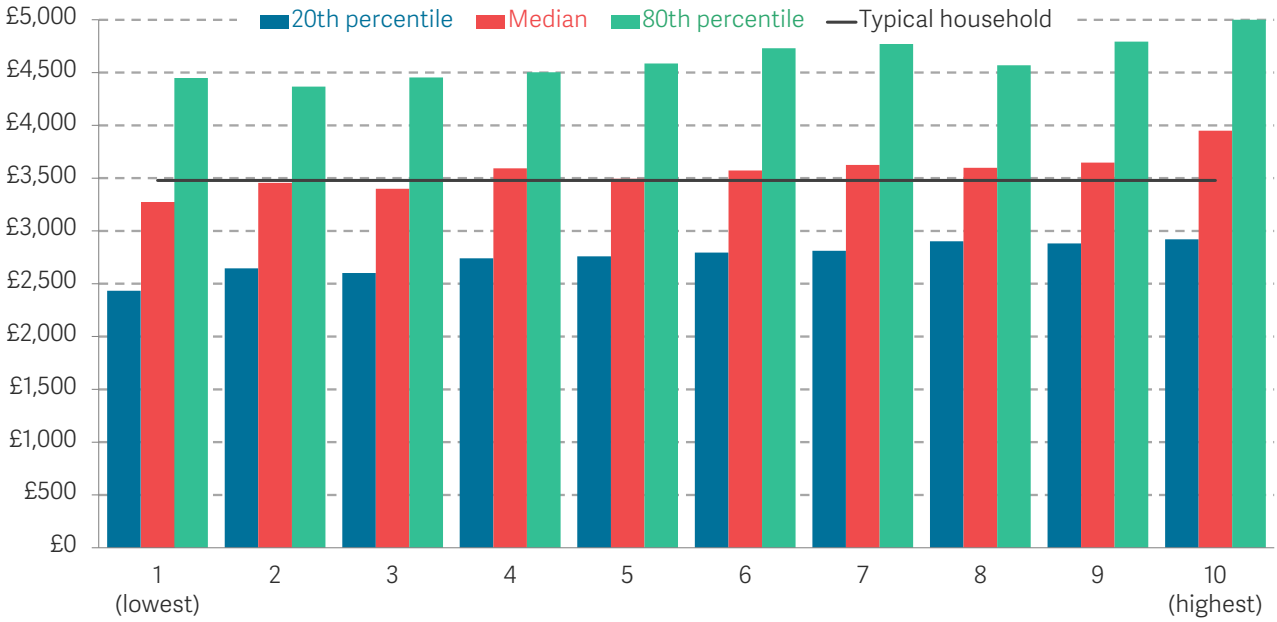
28 M Broome & J Leslie, Arrears fears: The distribution of UK household wealth and the impact on families, Resolution Foundation, July 2022.
29 One solution to higher bills gaining traction in the media is for households to cancel direct debits or not pay credit bills from October 1, in protest of profits being booked within the energy sector and a lack of Government support to help with costs. Non-payment of bills would harm consumers' credit ratings, and in turn their ability to borrow money in the future. That more than 100,000 have already pledged not to pay, despite these risks, highlights the parlous financial situation millions are facing this winter.
30 Just 6 companies service 83 per cent of domestic electricity and gas; Ofgem, Electricity supply market shares by company: Domestic (GB) & Gas supply market shares by company: Domestic (GB
31 For more see: OBR, Economic and Fiscal Outlook, Annex 3, March 2022.
32 Citizens Advice, Bank from the brink, July 2022; The sum of the cost of running Bulb in the Special Administration Regime (SAR) in 2021-22 (£0.9bn), the budgeted cost in 2022-23 (£1bn) and the estimated Supplier of Last Resort (SoLR) costs (£2.7bn) from: National Audit Office, The energy supplier market, June 2022.
33 Different customer bases and levels of vertical integration mean that Britain's remaining suppliers face different levels of risk going into this winter. Companies with large generation arms, such as EDF, or those owned by companies involved in fossil fuel extraction, such as British Gas, should be in better financial condition than those acting as a supplier alone. Companies with a more vulnerable customer base will also be at greater risk from non-payment of bills than those that generally service higher-income households.

size and composition, including whether people have long-term illnesses or disabilities, and that many households have almost no control over their properties' size or energy efficiency, either because they are not the owner of the property, or because they do not have access to funds to improve it.

A particular concern in this context is the considerable variation within income deciles in how much households will need to spend as a result of the higher price cap this financial year. By way of example, we estimate that the 20th percentile of required energy spending among the poorest tenth of the population in England is set to be £2,433 this year, while the 80th percentile is set to be £4,449 (Figure 13). These differences are even starker over the winter months, with spending for the lowest income decile set to be £1,645 for the 20th percentile compared with £3,007 for the 80th.

FIGURE 13: **Wide variation in energy usage across the income distribution means households will face a range of additional energy bill costs this year**

Forecast annual required spending on gas and electricity bills at selected percentiles, by equivalised after housing costs income decile: England, 2022-23



NOTES: Assumes the 2022-23 price caps evolve as shown in Figure 1.
SOURCE: RF analysis of English Housing Survey; Ofgem; Cornwall Insight.

For those in the highest income tenth of the population, the 20th percentile of required annual spending is £2,922, and the 80th percentile is £5,295. Crucially, this variation reflects different family sizes, heating systems and energy efficiency of homes, rather than simply different consumption preferences. Concerningly, the number of households

needing to spend more than £4,000 per year (in 2022-23) on energy will be widespread across the income distribution, accounting for 30.5 per cent of the poorest fifth, compared with 42.5 per cent of the richest fifth.[34]

The policy response to date, resting on fixed amounts of support per household (see Box 2), has entirely ignored this variation, but that is no longer tenable. At least some elements of support for lower income households need to reflect energy need, as well as income levels.

The argument that the scale of price rises is so large that it is now time for a policy response that recognises variation in household energy usage may appear to run counter to the standard textbook response, which would argue that supporting energy need (for example, with price reductions) must be avoided because it reduces the incentive for households to cut energy consumption.[35] This is true in general, and particularly in the longer term, but is very dangerous in the context of lower income households this winter. Indeed, Figure 8 showed that by June, households across the income distribution were already cutting back on electricity and gas in their homes. As prices rise over the winter, further raising the incentive for poorer households to reduce bills when they are already far higher than the same time last year should not be a key consideration for policymakers. Any benefit from further bill rises given the already-huge incentives to cut consumption among poorer households will be far too small when set against the very real costs of not providing low-income households with enough support to allow them to heat their homes, have warm showers, or to cook food. Maintaining incentives amongst higher income households is more valuable, although absolute increases in those incentives are likely to be very large and the impact of marginal changes to them should not be overstated.

In addition, many poorer households are simply not in a position to make the kind of adjustments we want to incentivise: in the lowest-income quintile, 62 per cent of households are renters (and another 47 per cent in the second income quintile), and higher energy bills do nothing to incentivise their landlord to raise energy efficiency.[36] Low-income homeowners whose homes need insulating to meet EPC C standards would, on average, have to pay upgrade costs of around £8,600, almost the same of their average after housing costs income of around £9,100 a year.[37] And there are many cases in which we absolutely do not want to further incentivise reduced energy use: as mentioned

34 Source: RF analysis of English Housing Survey, Ofgem and Cornwall Insight data. We refer to these as 'required' energy spending, as they are estimates of what spend is needed to heat a home to a minimum standard, incorporating the property's size, location, energy efficiency and the household composition.
35 For example, see: O Celasun, D Iakova & I Parry, How Europe Can Protect the Poor from Surging Energy Prices, IMF Blog, 3 August 2022.
36 Source: RF analysis of DWP, Households below average incomes (HBAI) statistics.
37 For issues facing households in the bottom quintile in poorly insulated homes, see: A Corlett and J Marshall, Shrinking Footprints, Resolution Foundation, March 2022.

above, cold homes are estimated to lie behind 8,500 excess winter deaths in the UK in 2019, the last pre-Covid winter.[38]

Addressing this dual variation in the impact of price rises and household's ability to cope with them is far from easy. It involves internal trade-offs – in terms of which variation to focus resources on when targeting support. And there are highly constrained options in terms of delivery mechanisms for support: at the moment, there is no mechanism that targets support on the basis of both household income and energy usage. But the fact that it is hard doesn't mean we shouldn't be clear about these being the priorities in designing policy: providing support where it is less acutely needed is a waste of inevitably rationed fiscal resources, and pushes the Bank of England towards setting higher interest rates than it would otherwise do. Failing to provide it where required means widespread destitution this winter, which would bring additional costs to the state, as well as misery for households.

Finally, the design of any support needs to consider the macroeconomic context. Although supporting households through the winter will require a significant amount of spending, it is unlikely that this will have an overall stimulus effect on the economy. This is because the Bank of England judges that the size of the economy is constrained by the supply side, meaning that further support which increases overall demand will result in higher inflation. This means any additional spending measures (that are not offset by tax rises) are likely to lead to higher interest rates being set by the Bank than otherwise.[39] This means that the job of fiscal policy makers is to worry about the distributional impact of the rise in energy prices, accepting that this will involve some higher interest rates but avoid that upward pressure being more than is necessary. The way to do address that impact most effectively – and which minimises wasteful support to richer households – is to provide support that is targeted by both income and by energy need. This also means that, although policies to support vulnerable families this winter will have important distributional effects, they will have little aggregate impact on the economy, weakening substantially the case for borrowing to provide that much-needed support.

38 K Handscomb and J Marshall, Cutting back to keep warm, Resolution Foundation, August 2022.

39 Because the Bank of England is worried about the impact of higher costs on the supply side of the economy, funding this vital support through borrowing means higher interest rates as it tries to stop higher inflation becoming entrenched. To get a rough sense of the extent of interest rate rises, £15 billion of spending on payments to households might see the Bank of England raise rates by around a further 0.75 percentage point relative to where they would otherwise have been, based on standard multipliers. This simple calculation uses OBR multipliers for spending, see: Economic and fiscal outlook – November 2020, Box 2.1, OBR, November 2020; and Bank of England multipliers for the impact of higher interest rates on the economy, see: S Burgess et al., The Bank of England's forecasting platform: COMPASS, MAPS, EASE and the suite of models, Bank of England Working Paper No. 471, 2013.

The proposals to date have tackled at most one of the two targeting challenges

Full proposals for dealing with this winter's high energy bills have now been made by a number of political parties and organisations, including the two contenders to be Prime Minister who have made partial proposals (see Box 3). Having just set up the twin objectives that any new policy this autumn must tackle, this section will now discuss how these mooted interventions square up.

BOX 3: **Existing proposals for the energy crisis**

- Rishi Sunak has said that he would spend £10 billion repeating payments to pensioners and households on benefits, as well as cutting VAT on the domestic use of fuel. It is not entirely clear, though, how he would split additional payments between payments to all households, payments to pensioners and those receiving disability benefits, and those receiving means-tested benefits.[40]
- Liz Truss has proposed to remove 'green levies' from energy bills (with the government funding them instead), as well as cutting the rate of National Insurance. Recently, though, she has also suggested that support will be made available on a targeted basis.
- The Liberal Democrats and the Labour party have both proposed keeping the price cap at its current £1,971, with the energy supply companies compensated directly by central government.[41]
- A number of closely-related proposals have been made by a range of organisations that would prevent the price of energy from rising as far as the Ofgem price cap. Reduced revenue would be funded by a combination of state finance or commercial loans. [42]

40 Sky News, Rishi Sunak unveils plan to slash energy bills for millions during cost of living crisis, August 2022
41 The Labour Party has suggested doing this for 6 months at a cost of £28.9 billion, although the cost of their proposed intervention has increased since it made that proposal, as expectations of Ofgem's price caps over the winter have since risen. The Liberal Democrats have proposed reducing typical bills by £1,400 a year, which would cost around £42 billion.
42 For example, Gordon Brown has proposed that the Government should negotiate company-by-company deals to keep energy prices down, offering loans or equity finance to the energy supply companies, but with the fall-back option of nationalisation of companies that do not, or cannot afford to, strike a deal. The energy industry has also suggested the Government intervenes to cap energy prices, with the costs borne by energy companies in doing so covered by loans from banks lending into a state-backed fund. These costs would then be repaid either by a surcharge on energy bills or from general taxation over a 10-15 year period.

The two contenders to be the next Prime Minister have suggested universal reductions in policy-driven aspects of bills, but these can only shave tiny amounts off winter bills

Around three-quarters of the current £1,971 price cap is due to the costs of buying fuel, running and maintaining the energy networks, and company operation, leaving less than £500 that can be affected by policies that can be changed without significant upheaval in the energy sector.[43] With the imminent jump in price due to elevated wholesale fuel prices, this room for manoeuvre will remain largely steady, not increasing in line with the expected more-than-75 per cent uptick in overall bills. Two of these costs – VAT and levies associated with the costs of environmental and social policy costs – have featured in prominently in the Conservative leadership campaign.

Zero-rating VAT from its current level of 5 per cent, thereby bringing domestic energy in line with essentials such as food and children's clothing, would bring down unit costs, but only marginally (by a factor of 5/105); this would be worth around £124 to the typical household this winter (but more in 2023-24 if the price cap rose in line with current forecasts).

Moving policy costs into general taxation would save a typical household £85 this winter.[44] Compared to VAT, though, whose charge on bills will increase by 75 per cent in line with the overall bill increase, levy costs are unlikely to change significantly from their current level (in fact, they will likely fall as high wholesale prices will feed through into a negative cost – paying back to consumers – for supporting renewable projects through the contracts for difference scheme). With policy costs largely levied on electricity bills, removing them would be a more climate-friendly move than cutting VAT on both electricity and gas, as it would improve the economics of switching to clean sources of domestic heating by changing the relative pricing of lower carbon electricity and higher carbon natural gas.

Overall, then, while funding levies from general taxation is more aligned with wider policy goals, zero-rating energy for VAT purposes would offer households slightly more protection this winter. But both offer very small amounts of relief given the size of the imminent jump in bills.

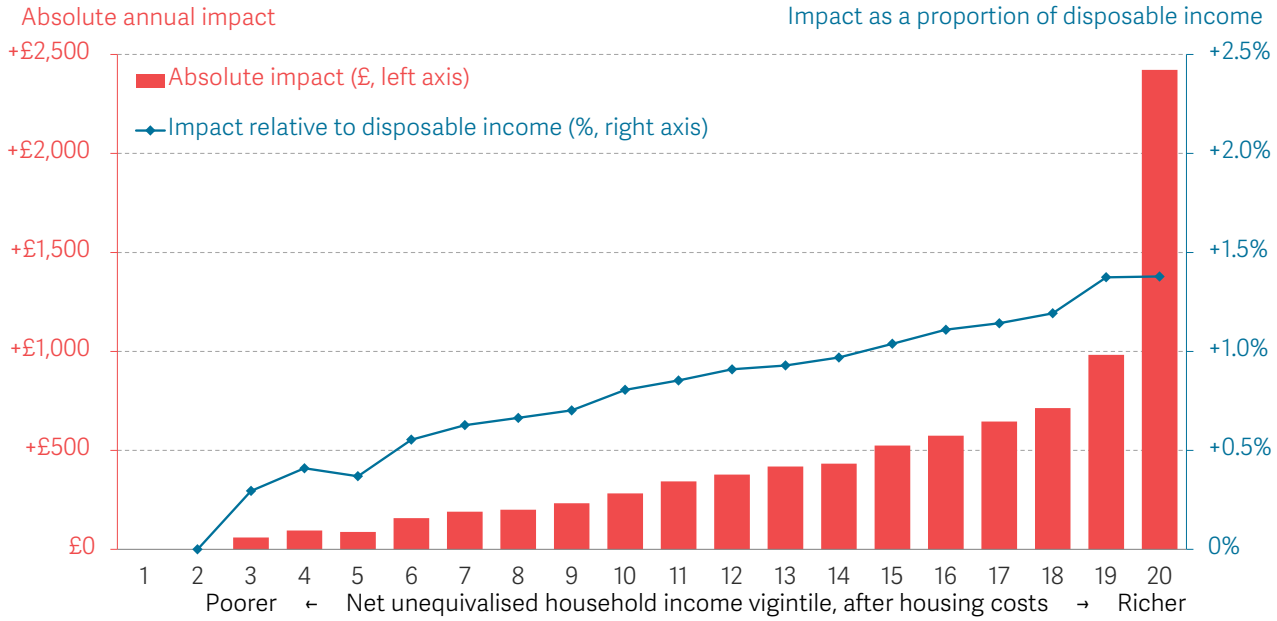
43 Ofgem, Price cap to increase by £693 from April, February 2022.
44 Currently, the costs of the Warm Homes Discount and Green Gas Levy Schemes are charged on a pence per meter basis, with the remaining 92 per cent (of winter costs) charged per unit of energy consumed. The loading of levy costs onto electricity bills, for which household consumption is relatively constant all year round, means that the potential savings this winter are lower than they would be if policies were also levied on gas, where households consume more than 75 per cent of total annual gas demand between October and April.

Personal tax cuts as advocated by Liz Truss are expensive, and are irrelevant for many low-income households

Cuts to direct taxes, as proposed by Liz Truss, are never going to be the sole solution to the cost of living crisis. As we have argued before, they do little to target those hardest-hit by the rise in the cost of living: only 15 per cent of the cost of scrapping the National Insurance rise would go to the poorer half of the population, while 28 per cent would go to the top twentieth (Figure 14). The change would also widen rather than narrow regional divides: the average income boost in the North East, Yorkshire & the Humber and Wales would be £290 a year (0.8 per cent of disposable income), while in London it would be over twice as large at £640 (1.2 per cent).[45]

FIGURE 14: **Only 15 per cent of the cost of scrapping the National Insurance rise would go to the poorer half of the population**

Impact on average disposable household incomes (after housing costs) of cancelling the personal National Insurance rate rise, by equivalised after housing costs income vigintiles, 2023-24: UK



NOTES: We exclude the bottom 5 per cent due to concerns about the reliability of data for this group.
SOURCE: RF analysis of DWP, Family Resources Survey, using the IPPR Tax Benefit Model.

Rishi Sunak has proposed more of the same with targeted payments

Rishi Sunak has indicated that he would spend around £5 billion repeating the payments to recipients of means-tested benefits, broadly enough to provide a further £650 grant to families on means-tested benefits, but without the additional payments to those on disability benefits, or to all pensioners.

45 T Bell & A Corlett, Talking tax: What's been said and what's gone unsaid in the Conservative leadership election?, The Resolution Foundation, July 2022.

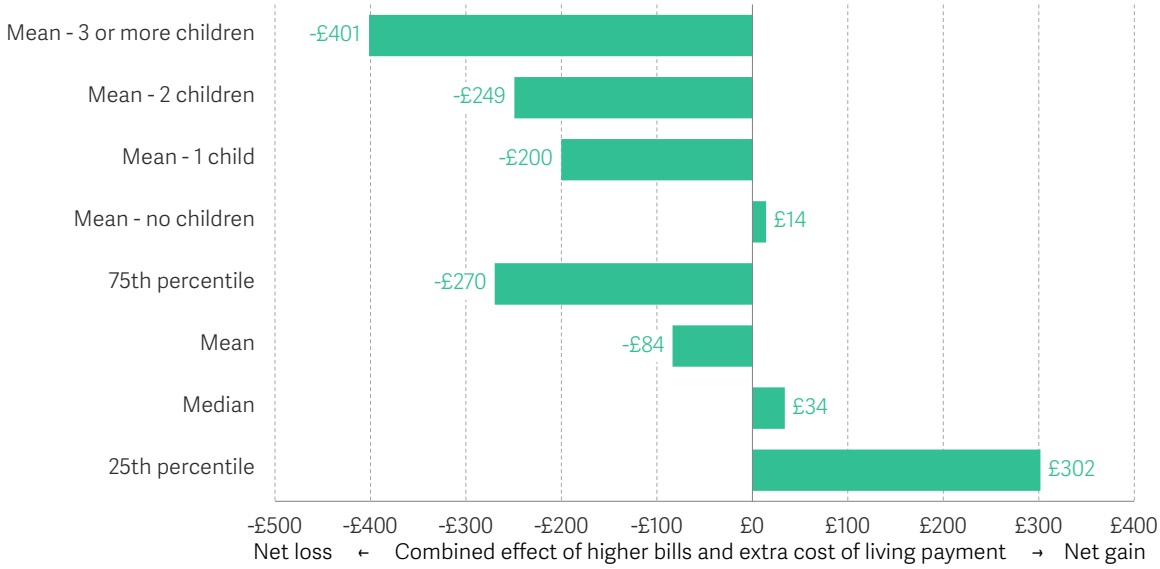
The key advantage of this, just as with elements of current support delivered through the benefits system (as discussed in Box 2), is that it would be highly progressive – supporting those households that need it the most – with almost 85 per cent of payments going to the bottom half of the income distribution. These would be the most effective way of targeting support quickly at those on lower incomes, and would make a major difference to low-income households this winter. There is, therefore, a strong case for them playing a role (although the £5 billion that Rishi Sunak has so far said he would spend on additional payments is small considering the scale of the problem; the increase in energy costs set to be borne by the bottom half of the income distribution is set to be around £10.6 billion).

However, there are challenges with this approach that grow with the scale of the problem.

First, this policy is untargeted towards energy use, which, as we have shown above, can vary significantly across family types, as well as the type of property and the degree of energy efficiency. This means that support provided by this mechanism is not closely correlated with households' energy need.[46] And these problems worsen the more we are relying on this payment mechanism to deliver support.

FIGURE 15: **More flat-rate support this winter would be poorly related to households' energy needs**

Average net gain or shortfall from the additional energy price rise this winter and a hypothetical £650 payment for the poorest fifth of households, by family type: GB, 2022-23



NOTES: This chart shows the effect of a hypothetical fixed payment to all households in the bottom income quintile. In practice, many households would not be eligible for a payment that is conditional on receipt of means-tested benefit. Single benefit unit households only.
SOURCE: RF analysis of ONS, Living Costs and Food Survey; Ofgem; Cornwall Insight data.

46 We showed this when analysing the support announced in May: see: T Bell et al, Back on target, May 2022.

In particular, Figure 15 considers how well an additional (hypothetical) £650 grant to families – which would cost around £5 billion if paid to all recipients of means-tested benefits – would compensate low-income households for their additional energy costs this winter. Such a grant would be insufficient, on average, to cover the rise in expected energy bills this winter that has taken place since May; this is why the average (mean) 'shortfall' in the Figure is £84.

But Figure 16 also makes clear the enormous variation between support and need among households in the lowest-income quintile. After excluding multi-family households (such as a house of young adults sharing, or a multi-generational household), a quarter of households in the bottom quintile would find that a £650 grant was at least £300 more than the rise in expected energy bills this winter that has taken place since May.

FIGURE 16: **Flat-rate support would leave 4 in 10 households in the bottom-income quintile seeing very large gains or shortfalls compared with the winter price rise**

Distribution of net gains and shortfalls of the additional energy price rise this winter and a hypothetical £650 payment for the poorest fifth of households: GB, 2022-23

NOTES: Shortfall is the amount household energy spending is estimated to increase this winter over and above the May forecast minus the Government support. Gain is where households receive more support than this energy spend increase. Assumes no behavioural change in energy consumption compared to 2019-20.
SOURCE: RF analysis of: ONS, Living Costs and Food Survey; Ofgem; Cornwall Insight.

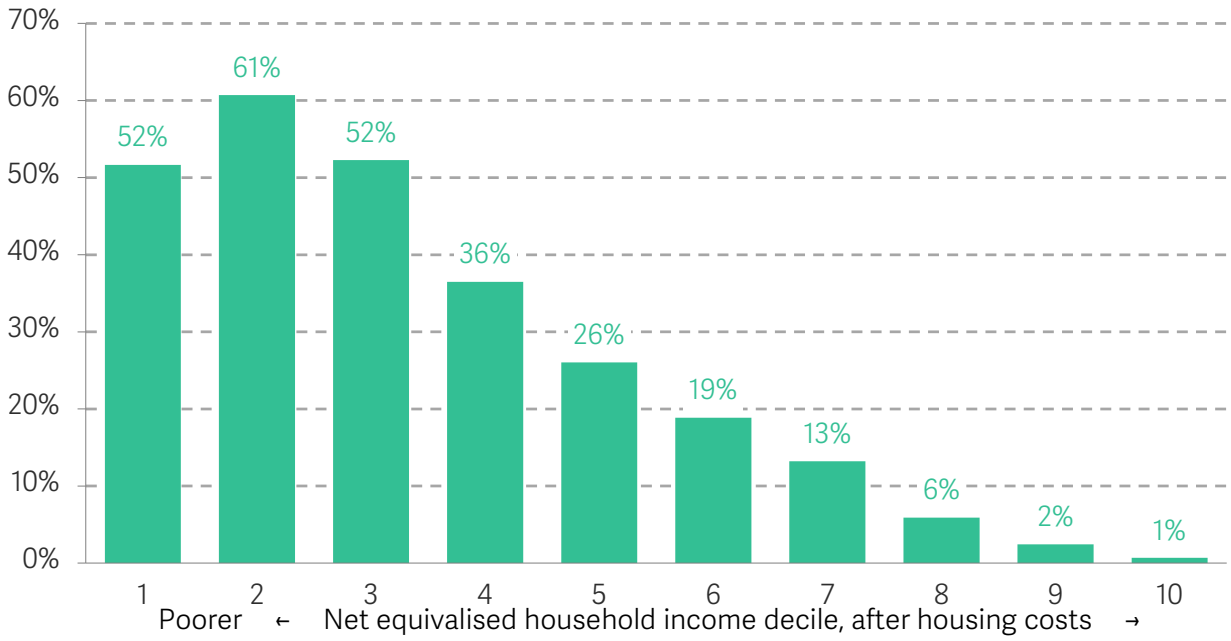
In the other direction, the rise in the expected winter bills is in excess of £920 for another quarter of households in the bottom quintile, leaving them still £270 adrift even if there were another £650 grant. Just as we showed in May, the mismatch between pressure on bills and support is greater for households with children, and is increasing in the number of children. Figure 15 shows that over 2 in 10 households in the bottom-income quintile

would see a gain of over £300, and another 2 in 10 households see a shortfall of over £300, when comparing a flat-rate payment with the scale of the winter price rise.

A second drawback with an approach based exclusively on payments to those on means-tested benefits is that it risks being too narrow given the scale of the challenge ahead. Figure 17 shows that a payment to all families in receipt of a means-tested benefit (such as Universal Credit, an equivalent legacy benefit apart from Housing Benefit, or Pension Credit), would see just over half (56 per cent) of households in the bottom income quintile and around one-quarter (23 per cent) of households in the middle-income quintile receiving support. A related issue is that directing too much support to those receiving means-tested benefits creates undesirable or unfair 'cliff-edges' in support, where two very similar households receive very different levels of support.[47]

FIGURE 17: **Making payments only to those on means-tested benefits would miss out at least 4 in 10 households in the lowest-income quintile**

Estimated proportion of households in receipt of means-tested benefits, by household income decile, 2022-23: UK



NOTES: Chart shows proportion of households that have a least one family member in receipt of a means-tested benefit such as Universal Credit (or legacy equivalent except Housing Benefit).
SOURCE: RF analysis of IPPR Tax-Benefit Model; DWP, Households Below Average Income.

Proposals made by the opposition parties to cap energy prices do address the problem at source, but a universal approach is extremely expensive

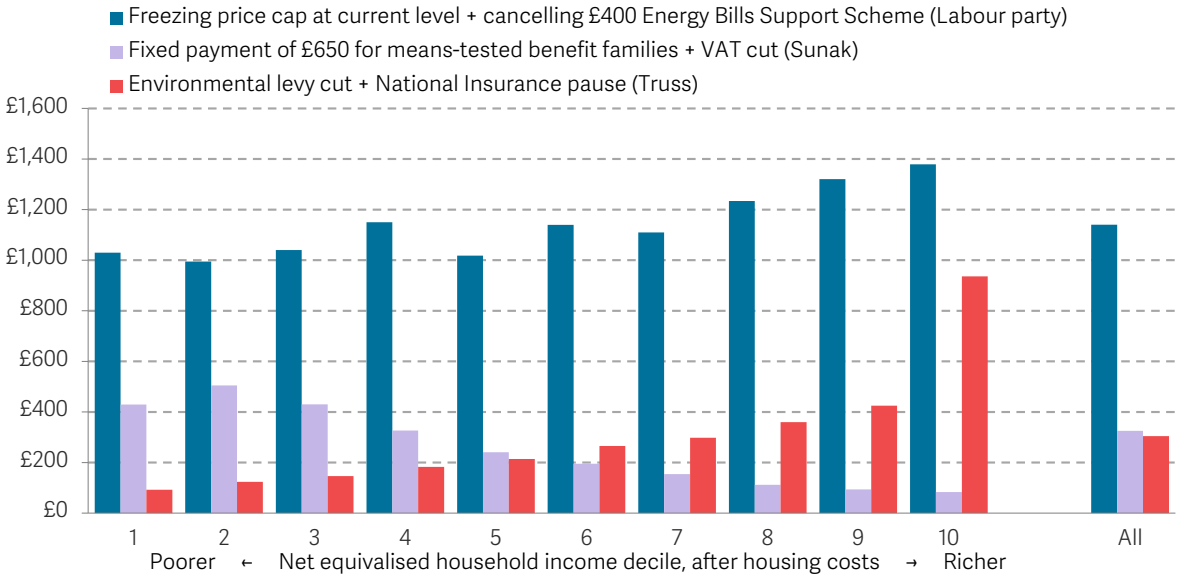
47 For example, the existing Government cost of living payments gave £326 to those people who were receiving some Universal Credit in the period 26 April 2022 to 25 May 2022, but nothing to someone whose claim began a day later. Even harder to justify is that those people who were receiving UC before and after that period, but not during that period, purely because of the unfortunate timing of their pay packets, received nothing. See: The Guardian, Cost of living crisis: some low-paid workers miss out on £326 help, 12 August 2022.

Proposals to cap energy prices have been made by the Labour party, the Liberal Democrats, industry bodies and think tanks. The key advantages of reducing the price of energy is that it ensures that support is provided in a timely way, and that, by definition, the amount of support received is in line with a household's need (in that the value of the policy is greater for those who use more energy). A universal policy also avoids cliff-edges, and no problems of coverage, because all low-income households will benefit.

However, the downsides with a universal price adjustment are the lack of targeting at lower income families, and consequential high costs (as well as the muting of the incentive for higher-income households to reduce energy use).[48] Figure 18 shows the distributional impact of the policy proposed by the Labour Party of holding winter energy prices at the level of the current price cap, but scrapping the planned £400 per household rebate for electricity bills. With energy spending slightly higher, on average, in better-off families, 22 per cent of the gains would go to the top 20 per cent of households.

FIGURE 18: **Proposed policies differ hugely in terms of their distributional impacts**

Impact on average disposable household incomes (after housing costs) of proposed policies in winter 2022-23, by income decile: GB, 2022-23



NOTES: Hypothetical £650 Cost of Living Payment provided to all adults (working age and pensioners) in receipt of means-tested benefits. National insurance effect includes Northern Ireland and is 2023-24. Assumptions: Environmental Levy is £85 for winter period across all income deciles.
SOURCE: RF analysis of: ONS, Living Costs and Food Survey; Cornwall Insight; Ofgem; and IPPR Tax Benefit model. All policies are calculated for a 6 month period.

48 Energy supply companies are not going to voluntarily charge less than Ofgem's cap, so keeping the prices to households considerably lower than the cap is either going to require government subsidy to the existing companies, or will lead existing companies going bust and the Government having to effectively subsidise the cost of energy to households through a new state-run energy provider. Nationalising energy supply companies doesn't reduce this cost materially; a new state-controlled owner would still need to procure energy to meet customer demand.

The Figure also shows how this compares with the policies currently proposed by Rishi Sunak and Liz Truss to Labour's proposed policy over a six-month period. All decile groups actually stand to gain more, on average, from Labour's proposed freeze on energy prices (even allowing for the abolition of the £400 bill rebate) than they would from the cut in National Insurance combined with a cut in the Environmental levies over 6 months. The scale of the giveaway by Labour is such that the richest fifth of households gain more from the Labour party policy in 6 months than they would in a year of cancelling the National Insurance rise.

This lack of targeting means that the policy would be expensive, driven by a huge deadweight loss where considerable sums of public money would be used to reduce the price of energy for better-off households. Reducing the cost of energy used this winter to the current price cap level (£1,971 per year) would cost in the order of £36 billion (although the Labour Party also want to cancel the £400 payment that all households are due to receive this winter, which would save nearly £12 billion). If the same policy was in operation through the whole of 2023-24 as well, and we assume that the price cap remains at £4,649 (the current forecast for Q1 2023, considerably lower than the current forecasts for 2023-24, then the cost over a full financial year could be £64 billion.[49]

Alternatively, holding energy prices to the level they were expected to be in May (£2,800 per year) would cost just under £23 billion this winter; a nearly equivalent policy would be to reduce the cost of energy to households by 30 per cent below the value of Ofgem's price cap (and we explore this option more below); this would cost £23.5 billion.

In the end, no means of paying for energy this winter will come at low cost, with the huge bill that inflated gas prices bring set to fall to either bill payers or taxpayers. It is the job of policy makers – and specifically of the incoming Prime Minister – to decide how and where these costs fall.

Can we do better?

As discussed above, the Government's approach so far has been to provide income transfers, which allows for support to be targeted at those on low incomes but fails to match support to energy need. On the other hand, policies put forward by opposition parties are for universal reductions in the price of energy, something that, by definition, provides support that relates closely to a household's energy need, but that is extremely expensive to extend to all households.

With the stakes as high as they are, flaws in existing and proposed methods will have severe ramifications, so it is imperative that we do better. Below, we consider ways to

49 These figures assume that the number of households whose energy bills are set by the price cap remains unchanged at 24 million.

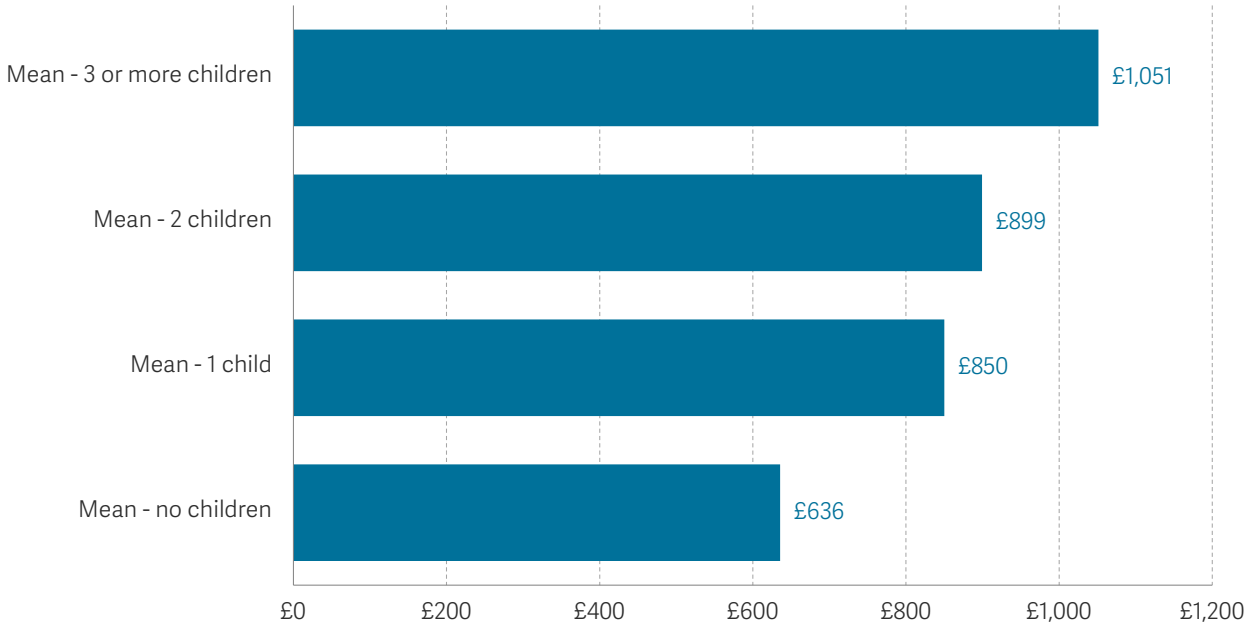
improve on current proposals. Crucially, the scale of interventions needs to match the scale of the problem, but it must also be targeted so that support is prioritised to those who without it would be unable to cope.

The current approach of using income transfers, while targeted at poorer households, could be improved further by relating payments to household size

The support announced in May successfully funnelled support to households on lower incomes, but it made no account for the difference in energy consumption (and therefore energy bills) that exists within income decile. As we showed above, above-average consumption means that nearly a third (30.5 per cent) of the poorest fifth of households would need to spend more than £4,000 on energy in 2022-23.

FIGURE 19: **Households with children spend more on energy bills**

Additional spending on winter energy bills compared with May by number of children, 2022-2023: GB



NOTES: Single benefit unit households only.
SOURCE: RF analysis of: ONS, Living Costs and Food Survey; Cornwall Insight; Ofgem data.

But given that payments to those on means-tested benefits have the strong advantage of being closely focused on low-income households, then, if the Government was minded to pursue income transfers as a way to combat pressures this winter, one route to scale

support to better match need would be to structure payments according to household size. This would allow it to address one of the factors that causes bills to vary: see Figure 19.[50]

For example, any future lump-sum payments to recipients of means-tested benefits could vary by the number of adults and children in the family, or there could be an additional payment to child benefit recipients (ideally differentiated by the number of children), although this would worsen the targeting with respect to income.[51]

In particular, a flat-rate payment of £790 would match the average increase in energy bills for single benefit unit households this winter, at a cost of £6.2 million. For a similar cost, the Government could provide a £600 fixed payment for a single adult on means-tested benefits, plus £200 for an additional adult and £100 for each child in the home. Figure 20 shows how payments that vary by family size would do a much better job at matching the rise in winter fuel spending for households with children in the lowest-income quintile than would a flat rate payment.

Household size, though is just one driver of energy consumption, and so payments based on this metric alone would inevitably fall short of adequately compensating some households (such as pensioners, who often have higher energy bills on the basis of spending more time at home, or those renting energy-inefficient properties). In particular, it would still leave 8 in 10 households in the bottom income quintile receiving too little or too much support, because there is such huge variation in people's properties, not just their family size.[52]

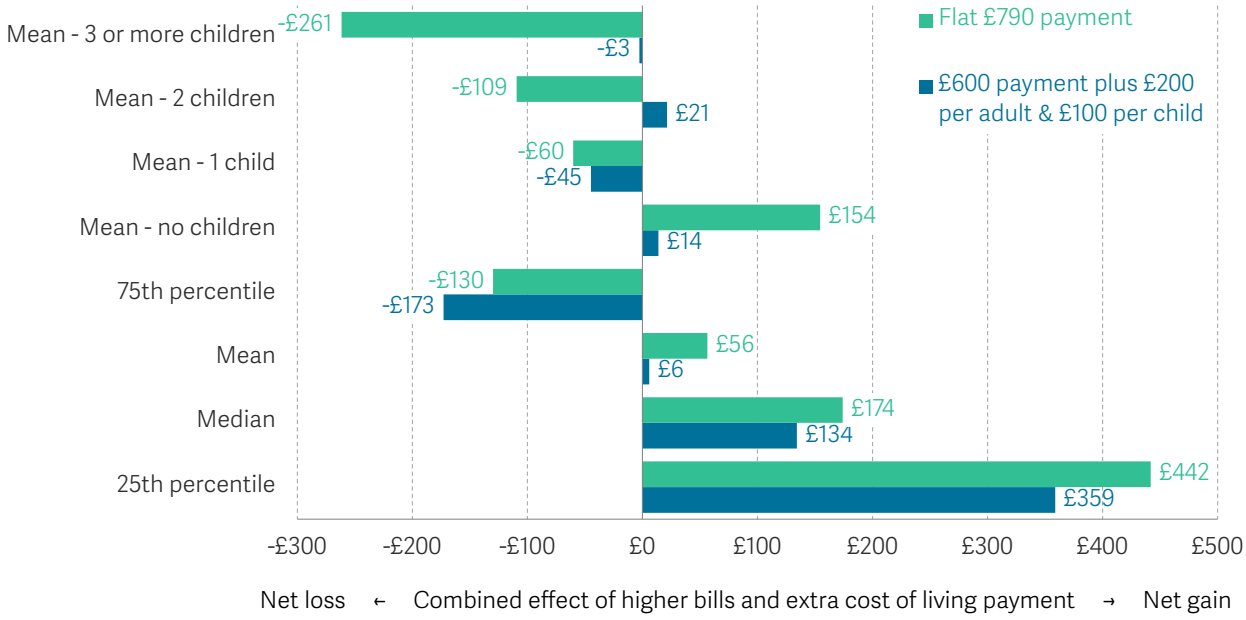
50 One could also argue that if the Government thought that the level of benefits was insufficient for households to meet costs, then a cleaner solution could be to increase benefit rates directly: this would provide more money to benefit recipients in a timely manner, would provide additional support that varied to some extent by household size, and would avoid all of the cliff-edges caused by the existing policy. However, the Government's rationale in May for not doing this was that IT limitations mean that not all benefits can have their amounts changed quickly, and some cannot be changed midway through the financial year. The Government is presumably also wary of locking in higher benefit rates in response to a problem that it hopes is temporary.

51 Extending payments to child benefit recipients would mean that two-thirds (65 per cent) of households in the bottom income quintile, two-fifths (42 per cent) in the middle-income quintile would receive some support and 58 per cent of households in the bottom half of the income distribution.

52 Too little or too much support is defined as an excess of £100 gain or loss relative to winter energy spending for those in the bottom income quintile. RF analysis of ONS, Living Costs and Food Survey; Cornwall Insight; Ofgem; and IPPR Tax Benefit model.

FIGURE 20: **Targeting payments to families with children can better match energy need**

Average net gain or shortfall of the additional energy price rise this winter alongside different policy options for the poorest fifth of households, by family type: GB, 2022-23



NOTES: Single benefit unit households only.
SOURCE: RF analysis of ONS, Living Costs and Food Survey; Cornwall Insight; Ofgem; and IPPR Tax Benefit model.

A social tariff would better target energy need than cash payments

There are, though, limits to how well we can match energy need only using the benefit system (although a related idea would be to make payments depend on historical levels of energy consumption – we discuss this in Box 4).

BOX 4: **Could payments to households reflect past energy use?**

One theoretical way of squaring the need to target households with both low incomes and high energy needs is to issue rebates that are related in some way to households' past energy use, or expected future use. Although past energy use is a not always a perfect guide to a household's current needs (not least considering the inevitable changes in behaviour that unaffordable prices this winter will bring), it is likely to be a much more closely related than a flat-rate payment.

The key challenge for such a policy would be accurately deciphering how much energy each household uses. This should be straightforward for the 45 per cent of domestic meters (13.7 million electricity and 9.7 million gas) that are smart, and therefore provide suppliers with consumption data

automatically.[53] For the remainder, suppliers could be required to provide accurate historical consumption figures (as well as encouraging households to upgrade to smart meters). Data may not be available for families that have recently switched suppliers or moved home, but rock-bottom levels of switching – rates have plummeted to an average of just 120,000 accounts per month in 2022, compared with 650,000 per month over the ten years prior – mean that this is less of an issue than many may think, especially when coupled with the historical trend of wealthier households being more likely to change energy supplier than those on lower incomes.[54] Nonetheless, for families that do fall through this gap, and for whom previous suppliers are unable or unwilling to provide consumption figures, modelled energy use in the EPC register could be used.[55] As such, although it would be hoped that suppliers would cooperate with a scheme that issued payments in line with historical consumption by sharing data, there are a number of workarounds that could be employed were this not the case.

As we discussed above, intervening to reduce the price of energy is the only guaranteed way to match support for need, but doing this in a universal way gives unnecessary gains to high-income families, at a very large cost to the state. One way to reduce this cost would be to offer a social tariff for energy, whereby certain households are offered cheaper tariffs.[56]

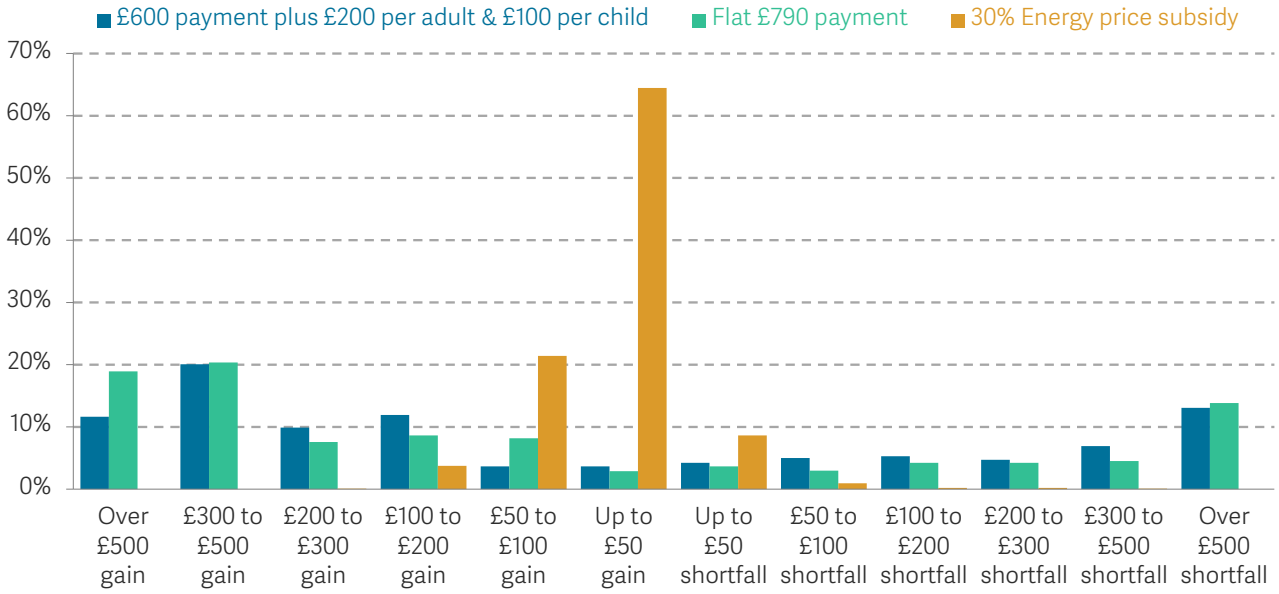
An obvious reform would be to extend eligibility for the Warm Homes Discount (WHD) scheme – which currently provides £150 a year off energy bills for recipients of all pensioners on means-tested benefits, and some working-age families – so that it can be received by all households receiving means-tested benefits, and to reform entitlement so that it passports recipients to a reduced price – such as a 30 per cent discount off

53 This figure that could be upped by 3.5 million across both fuels if smart meters not currently operating in smart mode receive software upgrades. For more, see: Smart Meter Statistics in Great Britain, May 2022.
54 Figures are for combined gas and electricity switches, so the number of households represented will be much lower. See: Ofgem, Energy data and research, accessed July 2022. The 2018 Competition and Markets Authority Energy Markets Investigation found that 50 per cent of households on an income of less than £16,000 per year had not switched suppliers in the past four years, compared with 39 per cent of those on higher incomes. See: CMA Energy Market Investigation.
55 Submitting an EPC is a legal requirement when a house is sold or let, so the EPC register would cover all properties that have been recently purchased or let, and would therefore negate issues associated with house-movers, at least until they have lived in new homes long enough to build up a real-world demand profile with their new supplier. Using the EPC register would also identify homes suitable for quick and low-cost insulation installations, such as loft insulation, allowing Government to offer advice to households on how they can act to reduce bills in the longer term.
56 For example, the Business, Energy and Industrial Strategy Select Committee recently recommended that the Government should introduce a social energy tariff. See: Energy pricing and the future of the energy market, July 2022.

the Ofgem price cap, with this reduced rate funded through general taxation.[57] Providing a 30 per cent bill reduction would be sufficient to address the increase in this winter's bills relative to those expected back in May, with support almost perfectly targeted at the cost rises faced by households; this would cost around £6 billion for the winter (as shown in Figure 21).[58] With DWP benefit entitlement data now being used to allow broadband companies to target social tariffs, it should be feasible to carry out a similar approach for implementing an energy social tariff automatically for many households.[59]

FIGURE 21: **Reducing the price of energy directly provides support that is matched to people's additional costs this winter**

Distribution of net gains and shortfalls of the additional energy price rise this winter alongside different policy options for the poorest fifth of households: GB, 2022-23



NOTES: Shortfall is the amount household energy spending is estimated to increase this winter over and above the May forecast minus any new hypothetical government support. Gain is where households receive more support than this energy spend increase. Assumes no behavioural change in energy consumption compared to 2019-20. Assumes that all households in bottom fifth of the income distribution receive payments. Single benefit unit households only.
SOURCE: RF analysis of: ONS, Living Costs and Food Survey; Cornwall Insight data.

A social tariff for those receiving means-tested benefits would improve the targeting of energy need over flat-rate payments, and remain highly progressive. But it would retain the problem of an acute cliff edge, based on whether you qualify for any benefits or not,

57 The current WHD scheme operates under an annual qualifying date, and households' entitlement to the £150 discount is based solely on their receipt of benefits on that date. Such a design is unlikely to be appropriate for an expanded social tariff, as it would mean households whose income fell and made a claim for benefits might have to wait a year to be passported on to cheaper energy, so if the WHD mechanism is going to be used, then there would need to be more frequent qualifying dates. But the Government has recently been creating ways for private companies to check easily whether their customers are eligible to certain benefits (see: Cheaper broadband for struggling families, 14 August); this suggests that a reformed WHD could become operational reasonably quickly.

58 Based on current forecasts, single benefit unit households' typical energy bill be higher by around £790 this winter compared to May forecasts. A 30 per cent reduction in energy costs – equivalent to a price cap of £2,490 in Q4 2022 and £3,255 in Q1 2023 will see an average energy-use household better off by £863.

59 Cheaper broadband for struggling families, 14 August.

and the Government may consider that the scale of the problem is now so large that support will need to be extended to a broader group.

Doing so is far straightforward, given the need to create a new means-test outside the benefits system. But it would not be impossible, and should be considered given the scale of the crisis facing the country; we set out a proposal in Box 5. The key advantage is that social tariff could address the issue of households in need of support not receiving it, for example by not being in receipt of qualifying benefits, and would tackle cliff-edges worth potentially hundreds of pounds that arise when befit eligibility is passported to wider schemes.

BOX 5: **A potential new social tariff for energy**

A suggested new social tariff could be designed as follows

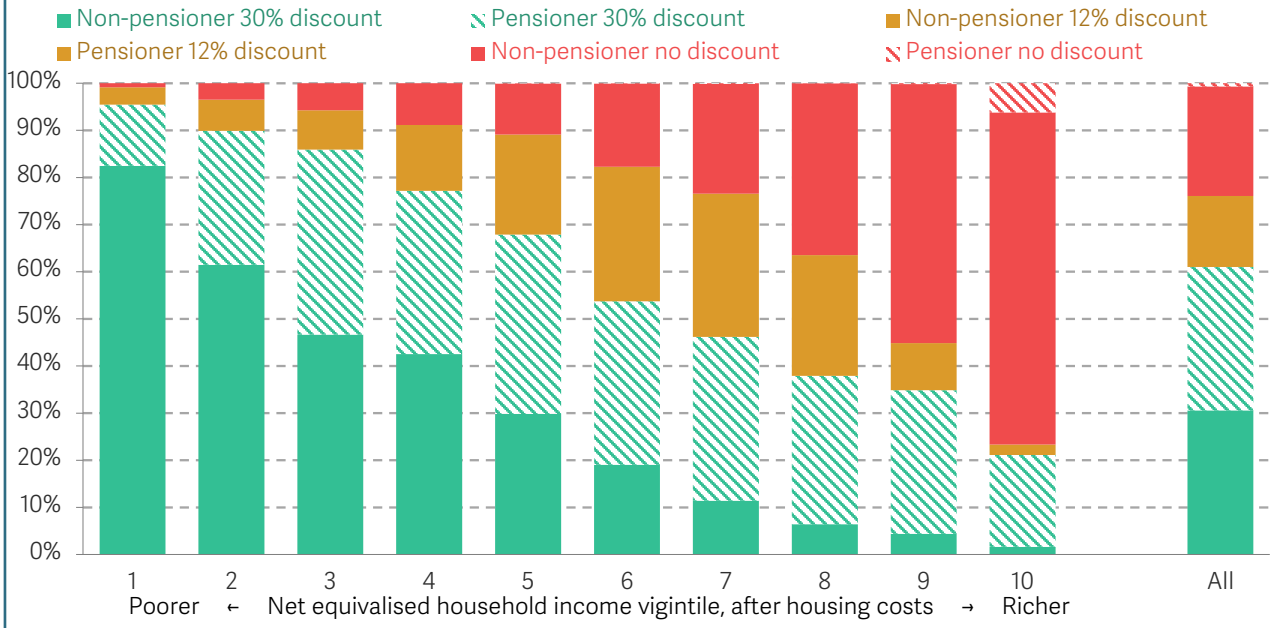
- a 30 per cent reduction in the energy price for households on benefits, pensioners, or where no adult earns more than £25,000 per year (as discussed above, a 30 per cent reduction would broadly ensure that households are facing winter energy bills in line with the expectation back in May, when it was thought that the energy price cap would reach £2,800 this winter); and,
- a 12 per cent reduction for households not in receipt of benefits but where no-one earns in excess of £40,000 per year.

This could cost around £15.4bn, but would benefit 94 per cent of the poorest half of households (compared to 45 per cent if entitlement was limited to those on means-tested benefits). How eligibility of this varies across the income spectrum is shown in Figure 22.

To ensure those most in need are able to access cheaper energy, as many low-income households as possible would be enrolled automatically by matching energy supply accounts with DWP benefits data, as is the case for existing policies such as the Warm Homes Discount and Cold Weather payments. On top of this, all PPM customers could have tariffs changed automatically, in the same way as is set to happen automatically come October 1, capturing another 4 million households.

FIGURE 22: **A broad social tariff could allow support to go beyond low-income households**

Proportion of households eligible for illustrative social tariff, by household income decile: GB, 2022-23



NOTES: Social tariff policy provides 30 per cent energy discount to all households claiming a means-tested benefit, all pensioner households, and all households where no-one individual earns more than £25,000 per year. 12 per cent discount available where no-one is earning more than £40,000 per year. Households with individual annual incomes (including unearned income) of over £100,000 are excluded from having a social tariff.
SOURCE: RF analysis of: IPPR Tax-Benefit Model; and DWP, Households Below Average Income.

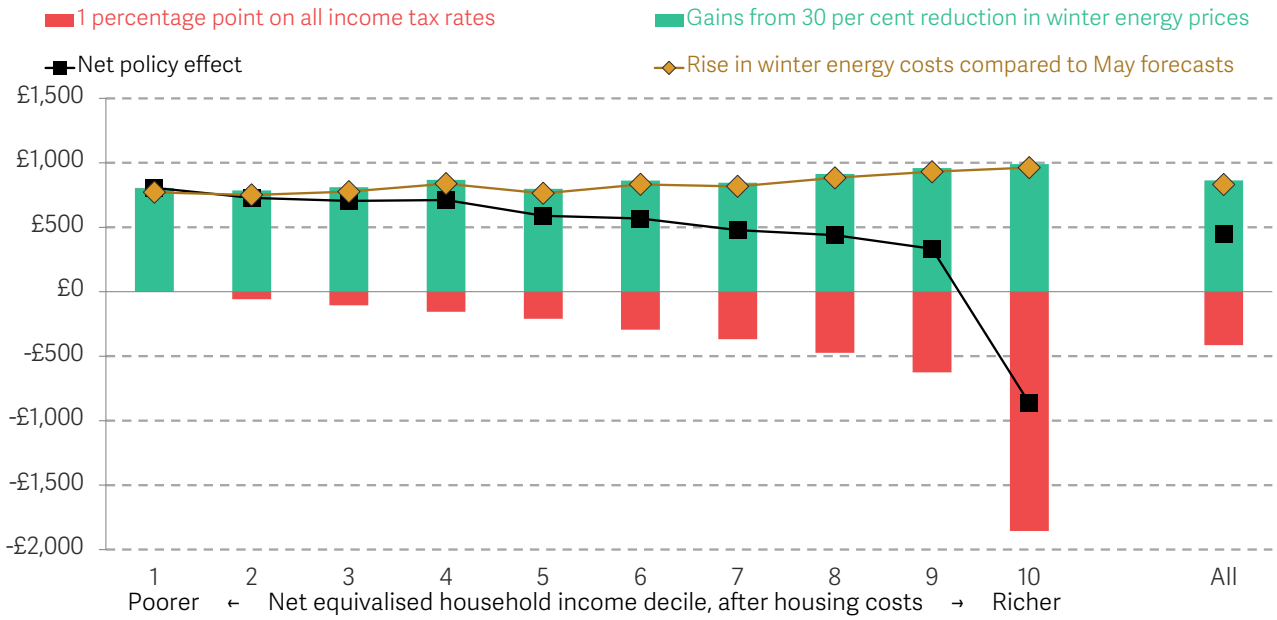
Those under an earnings threshold but not in the above groups would need to apply on a quarterly basis, as was this case for previous social energy tariffs, providing National Insurance details of all resident adults to HMRC, who would check against RTI and self-assessment data before passing on to energy companies. Further checks would be made to ensure that measured household energy use is commensurate with the number of reported adults. Rough justice would remain in the system and some fraud would be inevitable. The Government would need to commit significant resources to using HMRC's real time earnings data to give energy companies a decision on whether those applying for the social tariff, but who weren't on benefits, were entitled.

We can mimic the effects of a broader social tariff by holding down energy prices for all, but offsetting the gains with a solidarity tax rise

A social tariff provides a good combination of targeting both energy use and income, doing both through the cost of energy itself. However, an administratively – if not politically – easier way of achieving a broadly similar result (at the price of reducing the incentive for higher income households to cut consumption) would be to make the bill reduction universal, but tax back the gains from higher income households: the giveaway part of the package would target energy need, and the takeaway would be done in a way that relates to income.

FIGURE 23: **A rise in Income Tax alongside a universal cut in the price of energy could focus the gains to those who are less able to cope**

Average gains and losses from a 30 per cent reduction in energy prices this winter and a 1 percentage point rise in all rates of Income Tax, by equivalised after housing costs income deciles: GB, 2022-23



NOTES: 1 ppt increase on all income tax rates including dividend rates modelled as a one-year increase in 2023-24, UK. Rises in energy costs and 30 per cent reduction in energy prices modelled as GB for winter 2022-23.
SOURCE: RF analysis of, IPPR Tax-Benefit Model; DWP, Households Below Average Income; ONS, Living Costs and Food Survey data.

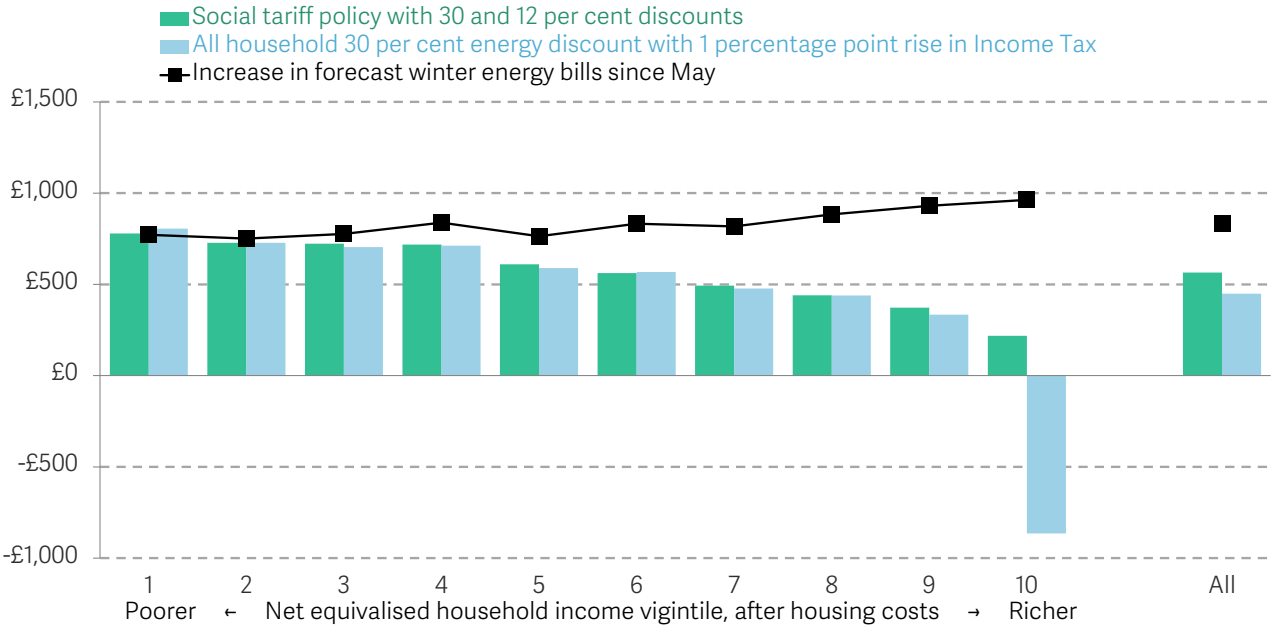
As an example, a 30 per cent bill reduction – again, broadly sufficient to offset the rise in expected winter bills that has happened since May, and coming at a cost of £23.5 billion for the winter period – could be combined with a 1 per cent increase in all income tax rate. Over a full year, such a tax rise would raise £9.5 billion in tax revenue, with 60 per cent paid by the top fifth of households (although the cost of a 30 per cent bill reduction would clearly increase if it were continued into 2023-24). This package of measures would

also have the major advantage of reducing the impact of the package in leading to the Bank further raising interest rates. Figure 23 shows the net gains in each income decile, on average, from this combination of policies.

Figure 24 shows how this combination of tax and spend would achieve a similar overall support package as the social tariff, with the exception of the top income decile who would be net contributors under solidarity tax. The poorest fifth of households would see an average of £767 of support (compared to £753 under the social tariff), covering all (101 per cent) of their additional winter energy costs compared to May forecasts. Meanwhile, the middle fifth of households would see £579 of support (compared to £586 under a social tariff), and the richest fifth contribute get £266 (compared to a gain of £295 under the social tariff).

FIGURE 24: **A universal price cut combined with a rise in income tax can approximate the distributional benefits of a social tariff**

Average gains and losses for a social tariff and a combination of a 30 per cent all household price reduction alongside a 1 percentage point rise in all rates of Income Tax, by equivalised after housing costs income deciles: GB, 2022-23



NOTES: Social tariff policy provides 30 per cent energy discount to all households claiming a means-tested benefit, all pensioner households, and all households where no-one individual earns more than £25,000 per year. 12 per cent discount available where no-one is earning more than £40,000 per year. Households with individual annual incomes (including unearned income) of over £100,000 are excluded from having a social tariff. Income tax rise is assumed to apply to income for the whole of 2022-23.
SOURCE: RF analysis of IPPR Tax-Benefit Model; DWP, Households Below Average Income; ONS, Living Costs and Food Survey.

While tax rises are not currently in fashion, and some households would lose more from the tax rise than they gain from lower energy bills, there are plenty of precedents for solidarity taxes of this form when geopolitics (most often wars) leads to collective

sacrifice by households: top income tax rates rose in both world wars, and a similar policy was enacted by Germany following reunification (see Box 6).

An alternative option for a Liz Truss-led Government that was totally opposed to any new tax rises would be to keep the recent National Insurance rise (rather than, as she has proposed, to reverse it), at least while support for energy bills was needed. Windfall taxes also have an important role to play, but today's windfalls from high energy prices are accruing to companies outside the UK as well as within the UK, so it is just not possible for the state to redistribute away all the excess profits made by those selling fossil fuels to UK households. Making energy bills vaguely affordable for low-to-middle income households will, therefore, also require contributions from higher earners today, or all taxpayers tomorrow if borrowing takes the strain.

BOX 6: **Solidarity taxes**

Solidarity taxes have been levied in extraordinary times – from wars to reunification – recognising that sometimes everyone must contribute. Countries participating in World War I needed to find money to fund the conflict, and needed to find it quickly. The UK, Canada, France and the US all turned to those who had been privileged by the state during a time of need – the wealthy – raising the top rate of income tax in order to compensate those making sacrifices. A higher rate of income tax for the rich compensated the majority who faced inflated prices and food shortages, workers for their efforts during the war, and the men who put their lives at risk on the front line.

In particular, although the UK entered World War I with regressive income taxation, in just a few years the top rate of income tax increased more than seven-fold from 8.3 per cent in 1914 to 60 per cent in 1920. These solidarity taxes weren't just levied in the UK, with the US raising the top rate from 7 per cent to 77 per cent over the course of the war and France from 2 per cent in 1915 to 50 per cent in 1920. The top rate of income tax remained high for much of the 20th century before falling in most countries from the 1970s.[60] Today, the top rate of income tax in the UK is just 45 per cent, applying to those earning more than £150k.

More recently, Germany's solidarity surcharge was introduced for taxpayers above the tax-free rate to compensate for the challenges of reunification after 1991. This 5.5 per cent additional income tax persists today, although as of 2021 only applies to the highest income earners.[61]

60 See page 78 of K Scheve & D Stasavage, Taxing the Rich: A History of Fiscal Fairness in the United States and Europe, 2016, Princeton University Press.
61 Germany Finance Ministry, Questions and answers on the extensive abolition of the solidarity surcharge, November 2020.

As we discussed earlier, intervening to lower the prices is not the typical economist's answer: a textbook response would lead us to let the price signals being sent by the market do their job at encouraging producers to supply more and consumers to use less. These arguments are hugely important in the medium-term, but can be over-stated in the in the short-term, particularly for poorer households. Even with a 30 per cent reduction in the expected winter prices, households would be paying more than twice as much as last winter, and there are real limits on how much low-income households can economise on energy use.

With no easing of gas prices in sight, policy makers also need to be thinking longer term

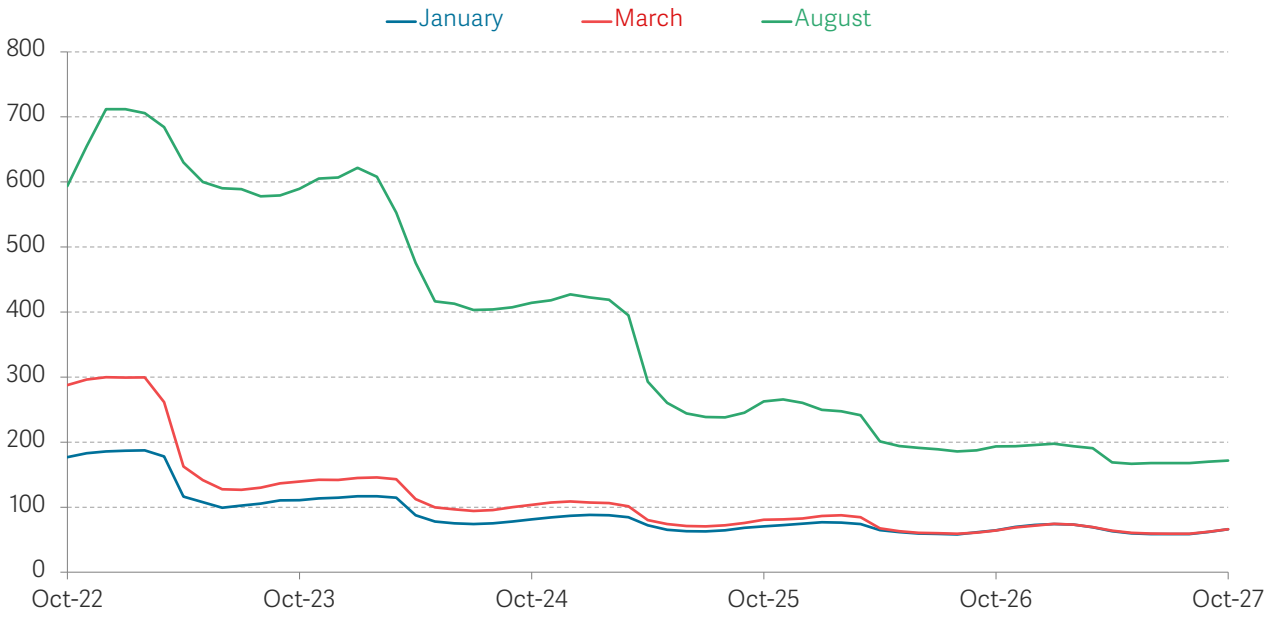
So far, announced or mooted Government interventions and other policy proposals have assumed (or hoped) that high energy prices will prove to be a short-lived spike, with support only needed until prices fall and normality resumes. However, with no let-up in sight in the geopolitical causes of the crisis (and likely a limited appetite in restoring Russian gas flows to pre-invasion levels even if the invasion of Ukraine were to end promptly), there is a clear likelihood that high energy prices could be with us for some time, evidenced by significant upward movements in wholesale futures markets (see Figure 25).

Although international commodity market forecasts always come with immense uncertainty, the repricing observed in recent months is the key factor behind the litany of ever-worsening projections for how high bills could go, with estimates now warning of annual bills breaching £5,000 for the typical household.[62] While these may not come to pass – rapid reductions in commodity prices have happened numerous times in the past – it would not be prudent for policy making to ignore the prospect of energy prices remaining high for several years. We need to make sure we avoid the optimism bias that beset economic policy making in the pandemic which might cause us to overlook slow-to-materialise measures that could keep bills down permanently.

62 The Financial Times, British energy bills forecast to soar above £5,000 next year, August 2022. The final price cap forecasts from Cornwall Insight, released the Monday before Friday's price cap announcement, predicted that typical bills would reach £5,341 per year in Q1 2023. For more see: Cornwall Insight, Final predictions for October's price cap, August 2022.

FIGURE 25: **Gas markets are pricing in higher prices, and higher prices for longer**

UK Natural Gas Futures price curves as of January, March and August 2022



SOURCE: Intercontinental Exchange (ICE).

Changing how the UK produces its energy so that it is less dependent on the whims of global markets should be a priority. Despite the short-term focus on increasing domestic fossil fuel production,[63] it is clear that the most impactful way to make energy cheaper is to rapidly scale up renewable and nuclear energy generation. This will involve building on the recent renewable energy auction with large and regular procurement rounds for all renewable technologies, including, crucially, quick-to-commission onshore wind and solar, which had until this year been excluded from government auctions for many years, in spite of their very low costs.[64]

Just building large quantities of renewable energy is not enough, however, especially when they operate in an out-of-date market structure designed for centralised, fossil-fuelled power stations. Reforms to market structures so that the price of electricity is de-linked from the price of gas are underway, but will take a number of years to implement, and therefore offer little respite this winter.[65]

An option that continues to be overlooked by the existing Government, and by those hoping to form the next one, is to reduce bills by cutting demand. Energy bills are a

63 Both Liz Truss and Rishis Sunak have said that they back a return to hydraulic fracturing (fracking) in areas where there is local support, and both have pledged to continue the current policy of 'Maximum Economic Recovery' in the North Sea. Neither, though, would produce sufficient quantities of hydrocarbons to impact gas market prices.

64 The Contracts for Difference 4th allocation round procured 11 GW of renewable capacity, including 10 onshore wind and 64 solar projects, all with strike prices of £45.99 (in 2012 prices).

65 The Government recently announced plans for widespread reforms to electricity markets, as part of the move to realise a zero-carbon power system by 2035. For more see: Department for Business, Energy and Industrial Strategy, Review of Electricity Market Arrangements, July 2022.

function of both unit prices and of the number of units consumed; negating the latter will mean households face energy bills that are higher than they need to be, for longer than they need to.

As discussed in Box 7, some other countries are already acting to reduce energy consumption, targeting quick impacts through behaviour change and longer-lasting change by improving energy efficiency. There is clearly, therefore, scope for the UK to do more here, including a public information campaign to highlight the savings on offer from small behavioural changes, distributing technologies that reduce energy consumption – such as smart heating controls – to lower-income households, or helping families make their gas boilers operate in a more efficient manner.[66]

BOX 7: How are European countries responding to the energy crisis?

Although the UK may be alone in entering the energy crisis off the back of 15 years of low growth and high inequality, it is not unique in experiencing rocketing gas prices. Most European countries are also facing a winter with rising gas prices and a risk of shortages. Governments in countries including France, Germany, Spain and Belgium provided an initial package of support in March this year, before updating this support over the summer as their cost of living crises intensified. These packages vary from price-based measures, such as reduced tax rates and per unit energy price caps, to lump sum payments to workers or those most in need.

Targeted support has come in the form of price policies, such as social tariffs in Belgium, as well as via income measures, such as lump sum payments to those receiving benefits or with children in Germany. Belgium's social tariff applies to both electricity and gas bills, supporting those with incomes less than €20,000 or those on benefits. The tariff works by providing a per unit energy price at wholesale rates to those that qualify, set biannually by the energy regulator. The number of households qualifying for the social tariff has increased since it was introduced, with almost one fifth of households in Belgium now benefitting.

Generalised support to households has been implemented by capping rises in energy bills in France, for example, where electricity prices are capped to a 4 per cent rise and gas prices have been frozen. Universal support has also been provided in the form of

66 It has been suggested that making straightforward changes to boiler flow temperatures so they operate more efficiently could cut gas consumption by up to 10 per cent. These claims will need to be backed up by real-world trials, but, if successful, they could be rolled out quickly by including in the protocol for annual boiler checks, and being made a requirement for gas safety certifications for rented homes.

universal payments increasing incomes by €800 in The Netherlands. In reality, most countries are providing a suite of policies which combines targeted and non-targeted measures.

Another major focus of strategies in some European countries is to rapidly reduce energy use (particularly of gas, with EU members agreed to reducing gas consumption by 15 per cent between August 2022 and March 2023).[67] For example, France is targeting a 10 per cent reduction in energy use in just two years through an 'energy sobriety' plan. Early measures ask retailers to switch off illuminated signs at night time, and tell households to turn off electricity sockets when not in use, with more details to be announced in September. In Spain, heating and cooling is being restricted by law, limiting air conditioning in public places to a minimum 27◦ C and heating to a maximum of 19◦ C. And Germany plans to retrofit the leakiest buildings, with almost €60 billion of new funding announced in July.[68]

Crippling energy costs this winter will, more acutely than before, highlight the porous nature of our homes: there are close to 20 British million properties rated EPC D or below that need insulating by 2035.[69] This winter, families in the least efficient gas-heated properties (EPC F) will see January gas bills £256 higher (£8.27 per day) than an equivalent C-rated home (see Figure 26). Over the winter, this difference will total £909, an average of £151 per month. When broken down to individual energy-consuming activities, living in a leaky home can add 58 per cent to the cost of a day's heating, which will jump from £7.79 in an EPC C-rated home, to £12.31 in an equivalent F-rated property.[70]

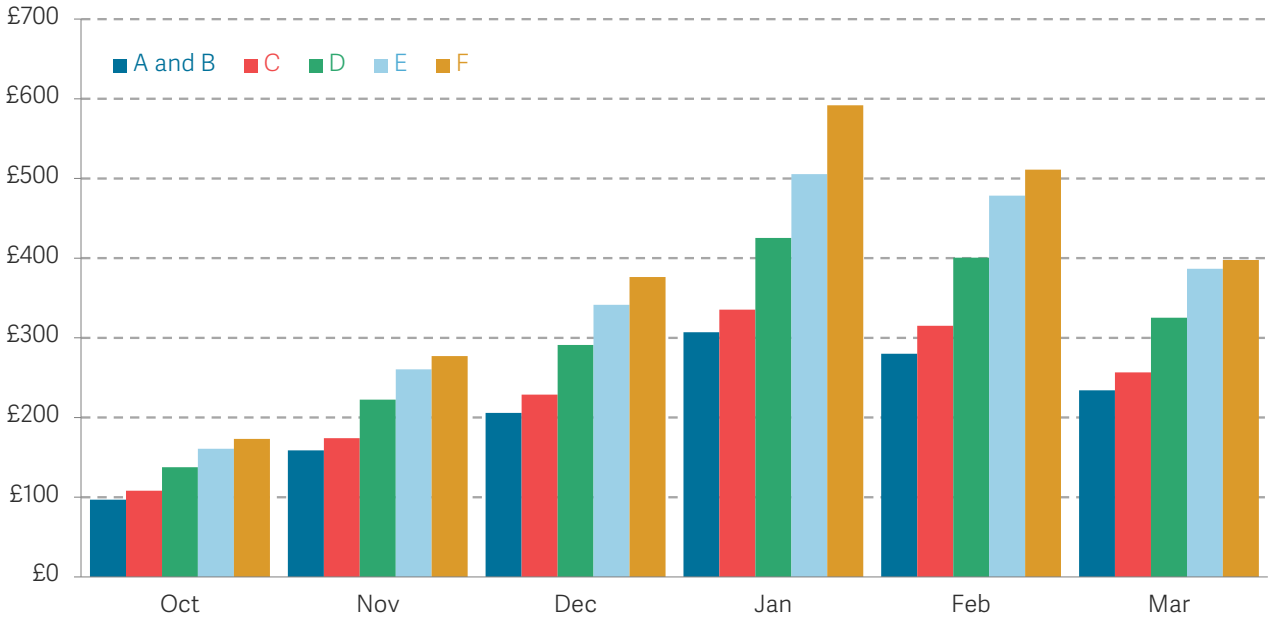
The low energy efficiency of the building stock is the result of a decade of inaction on insulating homes, and needn't have come to pass. Back in the early 2010s, a number of obligations on actors in the energy sector led to millions of homes being insulated, and reintroducing these could be a way of turning the ship around.[71] With an obligation already on suppliers, similar measures could be imposed on energy producers and generators as part of a Windfall tax, and on network companies to acknowledge years of

67 Council of the EU, Member states commit to reducing gas demand by 15% next winter, July 2022.
68 Euractiv, Germany's €177bn climate budget to focus on renovations, July 2022.
69 The Government's goal is for all homes to be EPC C rated by 2035.
70 See: K Handscomb & J Marshall, Cutting back to keep warm, The Resolution Foundation, August 2022. Gas bill and heating cost figures in this report were calculated before Cornwall Insight released its final forecast for the October price cap, and an updated prediction for January, and therefore are slightly different to newer figures used in this note.
71 Current GB annual energy efficiency installations are less than 10 per cent of what they were at their 2012 peak. See: A Corlett and J Marshall, Shrinking Footprints, Resolution Foundation, March 2022.

arguably excessive profit taking.[72] Ultimately, though, Government should produce an 'Energy Demand Reduction Strategy' to fill in the gaps in April's Energy Security Strategy, and usher in long-overdue changes in how British households consume energy.

FIGURE 26: **Staying warm this winter will cost a lot more money in an inefficient home**

Estimated monthly domestic gas bills by property energy efficiency (EPC) rating: Winter 2022-23, GB



NOTES: Figures account for gas costs of space heating, water heating, and cooking.
SOURCE: RF analysis of Ofgem, Cornwall Insight, UCL Smart Energy Research Lab, BEIS National Energy Efficiency Framework data.

Long-term interventions in the energy system need to ensure that the price that households and businesses pay for energy reflects the cost of producing and delivering it (a task made significantly easier by reducing unit costs and lessening demand). Borrowing for energy consumption costs is not a sustainable solution, especially when the bill for doing so could easily reach several tens of billions of pounds per year. This means that any changes to retail markets – such as a social tariff or freezes to the price

72 To avoid the cost of insulation schemes being passed onto households, companies that have enjoyed – and are set to continue enjoying – windfalls in energy production and electricity generation could be made to support low income households with energy costs. Network operators, particularly at the distribution level (whose profits have exceeded Ofgem's already generous allowances throughout the current RIIO price control period), could be forced to invest in cutting bills for lower income households, rather than paying substantial dividends year-on-year.

that immediately dampen costs will need to be time-limited and easily reversible, ensures that consumers are not shielded from the true costs of energy when cost pressures begin to subside.[73]

Of course, energy costs are not the only source of pressure on household budgets, with inflation pushing up the cost of all essentials. A country with higher costs for basic necessities requires a higher income floor to reduce the misery faced by those with lower levels of earnings. This means that benefits should, at a minimum, be indexed in line with the CPI, as planned for April 2023.

Conclusion

With energy prices set to reach levels that were unimaginable a year ago, the priority now must be to support low-income households through the winter, as the costs for this group of being unable to afford energy bills are arrears, destitution, or the inability to heat homes in winter. This means that the benefits system has a huge role to play – with the targeted payments that already in train crucial to helping the worst affected.

But the increase in the scale of the crisis mean that combining this with more radical approaches now looks all but inevitable. We can't ignore that the fact that a rise in price of energy makes us poorer as a country – it costs more to buy the goods we need from abroad. But fiscal policy will now need to play a key role in preventing destitution in the face of higher energy bills and other price rises. Big bill reductions combined with solidarity taxes, or channelling the creative approach to policy making shown in the pandemic to design a brand new social tariff scheme, should be the focus for whoever becomes the next Prime Minister.

A difficult winter for them, and the whole country, lies ahead.

73 Both of these measures would reduce the link between the price of energy and the costs faced by households, which, considering the need to reduce gas consumption with an urgency that matches the inhumane actions in Ukraine, should arguably be maintained – for households that can afford it – so that families take actions to reduce the amount of gas they burn.

The Resolution Foundation is an independent research and policy organisation. Our goal is to improve the lives of people with low to middle incomes by delivering change in areas where they are currently disadvantaged.

We do this by undertaking research and analysis to understand the challenges facing people on a low to middle income, developing practical and effective policy proposals; and engaging with policy makers and stakeholders to influence decision-making and bring about change.

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