Rough trade? Balancing the winners and losers in energy policy

citizens advice

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Introduction

Citizens Advice is the statutory advocate for domestic and small business consumers in Great Britain's gas and electricity markets.

At a high level, these 62 million citizens and businesses want the same things: good quality, value for money services that meet their needs. But the development of markets and policy may serve them unequally, resulting in better outcomes for some than others.

That isn't a problem if all are well served, but may be if some groups are left behind - particularly if their circumstances mean they are vulnerable to harm.

In our advocacy work, we constantly grapple with how to make trade-offs between the needs and interests of different consumers. This paper explores some of these trade-offs and sets out some principles for resolving them.

Trade-offs between different consumers

The most common way in which policy and markets can create winners and losers is through the creation of cross-subsidies flowing from one group of consumers to another. This may reflect differences in how commercially attractive or hard to serve those groups are. It may also reflect policy choices seeking to support certain types of consumer. In some cases, it may be accidental rather than a purposeful design choice.

The main categories of cross-subsidy within the energy sector are likely to be:

- Between engaged and disengaged consumers ('the loyalty penalty')
- Between consumers who are empowered to make changes, and those who aren't
- Between who pays for, and who benefits from, various social and environmental schemes
- Between payment methods and tariff types
- Between taxpayers and billpayers
- Between places and within days
- Between gas and electricity supply
- Between current and future generations, and
- Between our interests as consumers and as citizens

Cross-subsidies between engaged and disengaged consumers are likely to be a feature of many markets, and are commonly referred to as a 'loyalty penalty'. This manifests in the form of disengaged consumers being charged higher prices, that are used, at least in part, to subsidise cheaper acquisition deals for engaged consumers. The CMA's energy market investigation found evidence of this issue in the energy market, and its effects are currently being mitigated through the energy price cap.

Trade-offs between different consumers

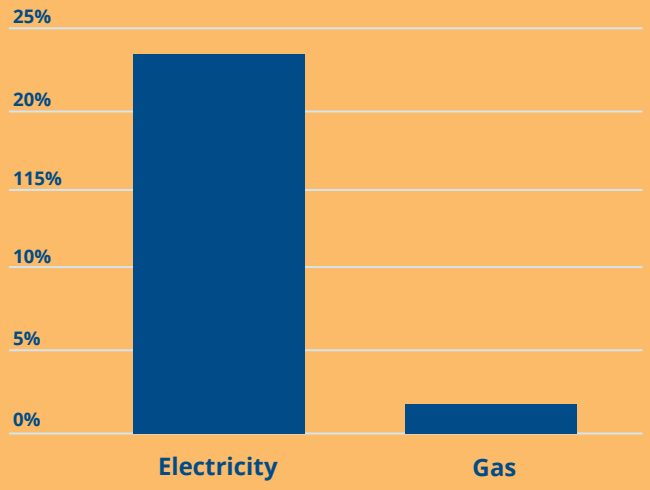
Consumer empowerment can take many forms. It can be behavioural, reflecting a confidence in researching and exercising choice. It can also be shaped by individual circumstances. Factors like income and tenancy are often relevant. For example, an owner-occupier with savings in a detached house may find it much easier to make choices on upgrading its energy efficiency than someone privately renting in a block of flats.

A range of social and environmental policies are in place that seek to provide support to vulnerable consumers and to deliver investment in low carbon generation and energy efficiency. These are mostly paid for through energy bills. The costs are usually recovered by suppliers on a per unit basis. This is usually progressive, as low income households tend to use less energy - but could be seen as unfair on low income high usage households. Some small suppliers are exempt from paying for these schemes, which means their customers are too. Consumers in low income households spend a higher proportion of their income on energy than those with high incomes, but will also sometimes be the target of spending by these social policies - they may therefore see more of both the costs and the benefits.

Trade-offs between different consumers

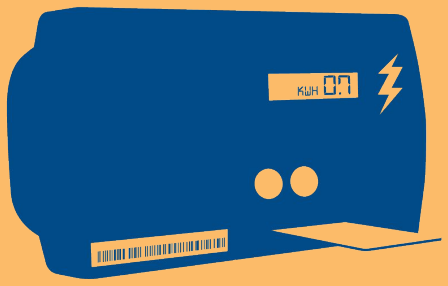
Prepayment meter customers have far less choice than other consumers, and can save less money by shopping around. For those who don't have smart meters, changing to a credit tariff may involve the inconvenience of having their meters replaced. The cost to serve prepayment customers is higher than for credit customers, though this may be changing as a result of the roll-out of smart meters. The CMA introduced a price cap for prepayment meter customers as it considered they were particularly badly served by the market. Offline customers have less choice than those who are online, and are also likely to find it harder to exercise those choices given the greater barriers to price comparison that they face.

A significant proportion of the costs associated with decarbonising the energy system are currently paid for through consumer bills, £11.4 billion in 2019/20. Paying for policies through bill levies rather than taxes is regressive, as it results in a greater proportion of the total spend being met by those in lower income deciles.



Social and environmental policy costs account for 23% of the typical household electricity bill but only 2% of the typical household gas bill.

This creates an awkward policy trade-off between consumers' environmental and social interests. Recovering these costs through electricity bills may discourage the electrification of heating and transport, which are both necessary steps if we are to decarbonise the economy. But if they are placed on gas instead, only some people will pay for these policies - and they will pay more as they pick up the burden of those who are now exempt.



Understanding the trade-offs

The loyalty penalty

Consumers in vulnerable situations are more likely to be paying the loyalty penalty than those who aren't. Households with the following characteristics are less likely to switch than the average consumer:

- 55 years of age and older (and particularly those 65+)
- On low incomes
- Left education early or have no qualifications
- Renters, particularly those in social housing
- Disabled
- On the Priority Service Register (eg with a declared vulnerability)
- Living in a rural area

Households with other protected characteristics are also more likely to be paying higher prices. For example, BAME households are more likely to pay for energy on standard credit terms rather than via direct debit.

Aside from potentially adverse effects on consumers in vulnerable situations, the loyalty penalty can also distort competition and reduce wider public welfare. A captive market dulls incentives on firms to become more efficient and to better meet their consumers needs, and makes market entry more difficult. Around half the consumer detriment uncovered by the CMA's investigation of the energy market related to inefficiency rather than excess profits.

The loyalty penalty is currently being tackled in the energy market through a time-limited price cap on default tariffs, which is expected to expire in 2023. The cap has constrained the loyalty penalty significantly, but it has not eradicated it.

We think that some form of enduring price protection for vulnerable consumers is likely to be necessary. The loyalty penalty has been a persistent feature of the retail energy market since its inception. The government has signalled its desire to explore whether the expansion of opt-in collective switching, and the trialling of opt-out collective switching, could deliver on this aim.

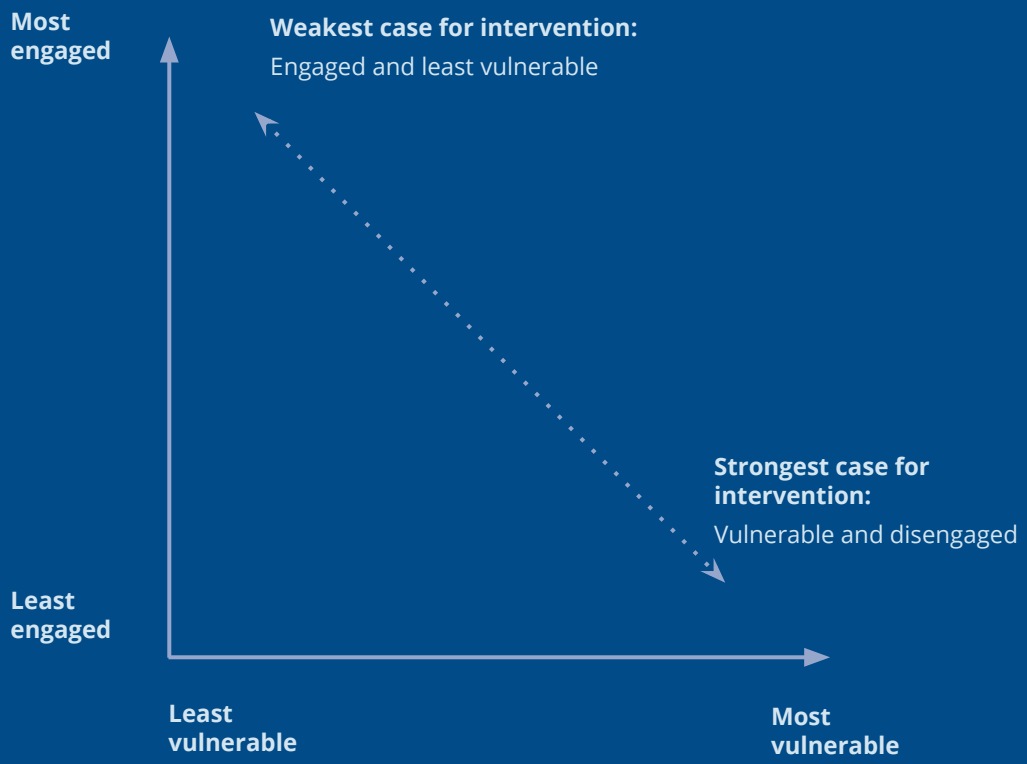
Consumer empowerment

Consumer empowerment can take many forms. It can be behavioural, reflecting a confidence in researching and exercising choice. It can also be shaped by individual circumstances. Factors like income and tenancy are often relevant. For example, an owner-occupier with savings, living in a detached house may find it much easier to make choices on upgrading its energy efficiency than someone with no savings who is privately renting in a block of flats.

Significant distinction needs to be made between those who can't act and those who could but choose not to.

There is a much stronger case for policy protections for those who can't act, particularly where this overlaps with vulnerable characteristics. Where people have agency to make their own decisions, and can afford to live with the consequences of not doing so, there is a much weaker case for stepping in. This trade-off is shown in simple terms in the chart to the right.

How levels of engagement and vulnerability influence the case for intervention



Consumer empowerment

Our understanding of who is empowered will need to evolve as technology and the drive to meet net zero changes the face of the energy market. Historically consumers' energy choices were largely constrained to which tariff they were on, and with which supplier. The focus of policy was on the price, choice and quality of energy provided as an ongoing service to light and heat our homes.

But this will need to change as we look to decarbonise heat and transportation. The new choices this will prompt will often involve significant upfront costs in equipment. While the costs in these new markets should reduce rapidly through economies of scale, in the early days of the transition these costs may be much higher than the previous generation's technologies.

For example, the installation of a new air source heat pump system might cost around £12,000 compared to £2,500 to replace a gas boiler. The transaction costs associated with making these changes will disempower many consumers unless policies and markets develop to bridge the financing gap. [5]

Barriers to empowerment go beyond economics. The physical fabric of people's homes will edit the choices that are available to them, as will the nature of their tenancy and whether they have control over how their home is heated and how they travel to and from it. The complexity of these constraints will challenge energy policy as many of these issues - such as tenants' rights and the availability of public transport - don't sit squarely with the energy ministry.

We will need to develop a more sophisticated understanding of consumer empowerment as the net zero transition progresses.

Taxes versus bills?

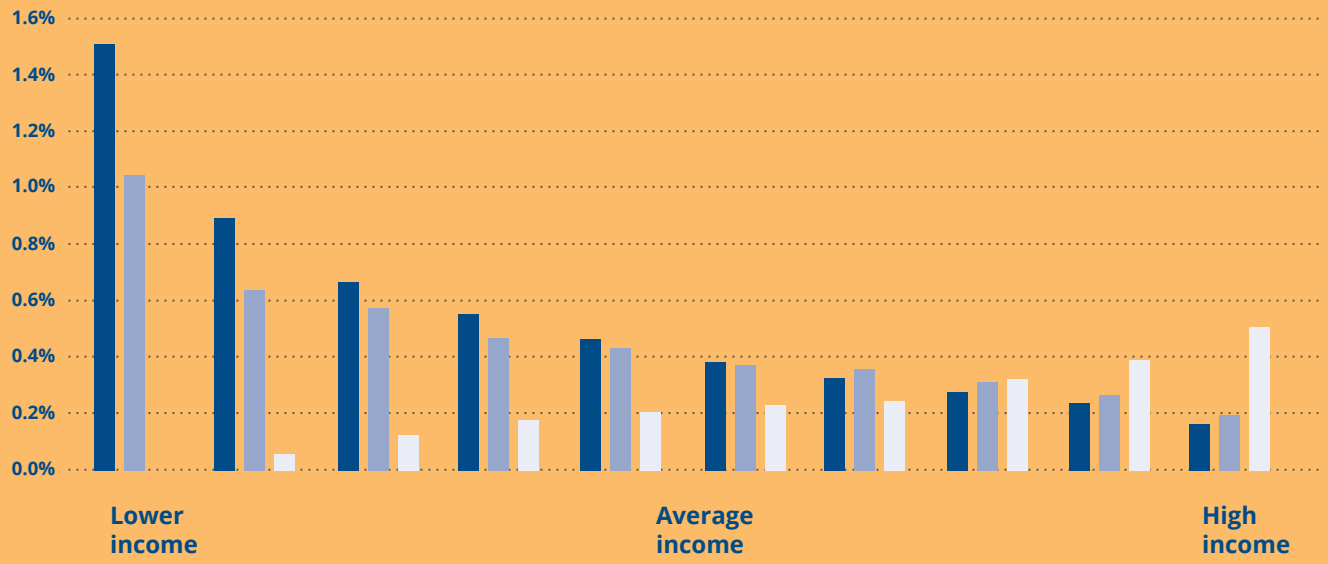
A significant proportion of the costs associated with decarbonising the energy system are currently paid for through consumer bills, £11.4 billion in 2019/20.[6] Paying for policies through bill levies rather than taxes is widely agreed to be regressive, as it results in a greater proportion of the total spend being met by those in lower income deciles. In its 2013 report on Prices, Poverty and Profits the Energy and Climate Change Committee noted that:

'The use of levies on bills to fund social and environmental programmes will add to the burden faced by energy bill payers, particularly in low-income households. Public spending is less regressive than levies in this respect.'[7]

In 2018, the UK Energy Research Council considered alternative models for funding policy costs,[8] comparing the status quo (the blue bars in the chart below), with moving those costs to business consumers (the light blue bars) or to general taxation (the white bars). It concluded that:

'Placing policy costs on businesses, or funding the costs from general taxation would lower the burden on the poorest households. The general taxation approach would better align energy demand with policy costs, and would reduce costs for 70% of UK households. The poorest households would pay nothing, saving them £102 a year, while the richest households would pay an additional £410 a year (under £8 a week).'

Proportion of household income required to meet different energy policy funding approaches



Taxes versus bills?

A third of the population has less than £600 in savings,[9] and one-in-eleven has no savings at all. The use of household credit to meet essential bills like utilities, whether explicit (eg using credit cards or loans) or implicit (eg incurring banking fees for going overdrawn) is likely to be common. These costs will be in addition to the headline distributional impact of paying for policies through bills rather than taxes.

The public finances are under significant strain and this situation has deteriorated due to the pandemic. But we think it is important that policymakers give detailed consideration to the possibility of moving some policy costs from bills to taxation. This appears important if we are to mitigate the impacts of the transition on lower income households. Avoiding a public perception that the costs of policy are unfairly distributed and/or unaffordable for some will be crucial to ensuring public acceptance of the low carbon transition, and the current regressive approach to cost recovery endangers this.

We will continue to push for fairer recovery of policy costs.

Balancing the costs faced by electricity and gas consumers

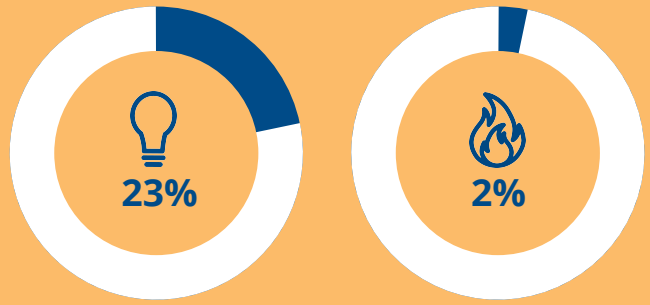
Policy costs associated with decarbonising the energy sector and operating social support schemes are largely recovered through electricity bills. They account for ~23% of the typical household electricity bill but only ~2% of the typical household gas bill.[10] This recovery method reflects the relative universality of access to the electricity grid, and that the environmental policies they pay for relate to decarbonising the electricity system.

The use of gas is a major contributor to climate change. We need to reduce our reliance on it as a form of energy. Our pathway to net zero will require significant electrification of both heat and transport. This could be impeded if policy costs are largely recovered through electricity bills as it will erode the financial benefits of switching fuels from gas to electricity.

It can also be argued that as the volume of electricity that is provided from low carbon sources continues to accelerate that it may be perverse to levy more costs on a relatively cleaner power source than gas. For these reasons, it can be argued that there is a reasonably strong environmental case for moving policy costs from electricity to gas.

While the environmental case for moving policy levies from electricity to gas is strongly positive, the social case is more problematic.

The reason for this is that while almost every household is on the electricity network only around 85% of households are on a gas network, a figure that should fall dramatically in the coming decades as we reduce our reliance on gas.



Policy costs associated with decarbonising the energy sector and operating social support schemes account for 23% of the typical household electricity bill but only 2% of the typical household gas bill.

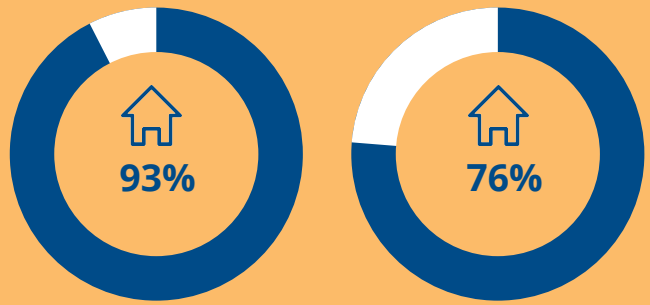
Balancing the costs faced by electricity and gas consumers

Moving from recovering policy costs from all consumers to only recovering them from a shrinking minority could have several potentially adverse distributional implications.

The first of these is that there is a leveraging effect. Because only some consumers would be paying for policies, rather than everyone, the amount that the majority would have to pay would have to increase to reach the same overall policy spend. So most consumers would see their bills increase, at least in the short term. Conversely, the minority of consumers now effectively exempted from policy costs would see their bills drop. The impacts of this on affordability and the pattern of fuel poverty would need to be understood before such a step could be taken.

As households progressively move from using gas to electricity for domestic heating, this leveraging effect would increase over time. Given the upfront costs associated with electrifying properties it's likely that early adopters of heat pumps may be more affluent than the average household, and that policy costs may fall more heavily on those less able to afford to pay them.

There are also locational distributional implications. While at national level, around 85% of households are on the gas grid, this varies significantly by region from 93% in north west England down to 76% in south west England.[11] Recovering policy costs solely from those on the gas network is therefore likely to result in some regional rebalancing of who pays for policy costs away from regions with lower than average proportions of the population on the gas grid (like the south west, inner London, the east of England and Wales) onto those with higher proportions (like the north east, north west and Yorkshire and the Humber). This may be perceived as regressive, particularly given some of the 'losing' regions would be among the UK's poorest.



93% of household in north west England are on the gas grid, but only 76% in south west England.

Balancing the costs faced by electricity and gas consumers

Finally, there are fairness questions over whether some households should be effectively exempted from policy costs. Climate change affects all of us, and every home and business benefits from the significant ongoing investment in decarbonising our power system that these policies pay for.

Alternative approaches to removing the disincentive to electrify could include moving policy costs to taxation, though this may be politically difficult given stretched public finances. It has also been suggested that a blended approach of moving existing electricity policy costs to taxation while new carbon taxation is added to gas bills could be possible. Any consideration of alternative approaches will need to consider how progressive they are, and their distributional implications.

There are no easy answers to this problem and implications of significant changes to how costs are recovered, and the likelihood that this would materially change the profile of who pays for decarbonisation policy, will need to be worked through. We will work to ensure these implications are fully considered by policymakers.

Between places and within days

The wholesale market for electricity divides each day into 48 half hourly settlement periods. Each half hour has its own price, reflecting the balance of supply and demand on the system at that time. Demand typically peaks in the evening as we arrive home from work and schools, and is at its lowest overnight when most are in bed.

In principle, if the value of electricity at different times could be signalled to consumers, and they wanted and were able to act on those signals, we could deliver a cheaper electricity system by encouraging people to move some of their consumption from peak to off-peak times. The benefits of this would be shared by all consumers, and particularly felt by those who are able to move their consumption to cheaper times.

Currently only a minority of consumers, around 1 in 7, are on “time of use” tariffs where the price they pay differs between peak and off-peak periods. They are most frequently on Economy 7 tariffs which divide the day simply into a peak period and an off-peak one.

1 in 7 consumers are on “time of use” tariffs

The mass rollout of smart meters, which are offered to every household with no upfront cost, and the rollout of smart goods in the home, may change this fundamentally. Smart metering will allow each household's consumption to be attributed to an individual half hour, so their peak and off-peak use can be identified. Smart devices in the home will allow consumers to change their consumption patterns more easily to benefit from off peak pricing.

These benefits are not without risks. Some consumers may not find it easy, or possible at all, to move their consumption to cheaper periods. Access to smart devices is naturally most likely to fall to the affluent first, and those on lower incomes may be left behind. Price comparison may become more difficult with more complex products on sale. Delivering and enforcing consumer rights may become complicated as the boundaries between energy, technology and financial regulation become blurred.

Between places and within days

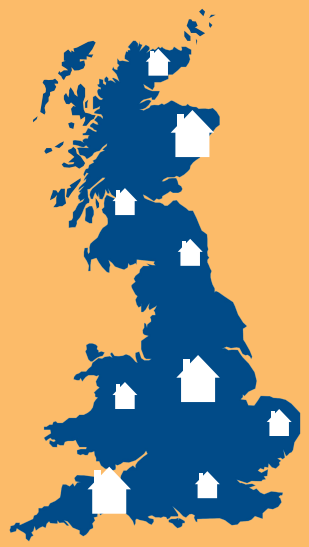
We will continue to work with policymakers to ensure that consumers are protected as we move into a 'smarter' world. We want to see those consumers who can benefit from time of use pricing do so, while others who would benefit from more simple pricing are still able to access good value simpler tariffs.

Just as the value of energy varies with time, it also varies by location. Consumers are partially exposed to this as their bills reflect different distribution charges in different regions. The extent of regional variation is somewhat narrowed by policies that try to partially defray the costs of the most expensive region to serve, northern Scotland, by recovering some of them from consumers across Great Britain.[12] However, beyond distribution charges, household and small business consumers are not meaningfully exposed to locational signals in retail energy prices.

There is live debate within the sector on whether stronger, and more precise ('nodal' rather than regional) locational charging should be introduced to send out stronger signals to network users on the costs associated with serving their location. In theory, these could incentivise the more efficient siting of new demand and generation, and of the use of existing assets.

While we acknowledge that more precise locational pricing could more accurately reflect the costs of serving different consumers, we aren't convinced that a case has yet been made for its application to household consumers. We think it is very unlikely that domestic consumers would choose to actively relocate because of energy prices - they are likely to be trumped by the need to stay close to their work and family.

It's more likely that applying stronger locational prices to households would simply create windfall gains and losses for different households, depending on whether they were located in a favourable location on the network or not. It may be that many of the benefits of locational pricing could be delivered by only applying these signals to large new network users who are able to factor them into their siting decisions. We think that much more analysis of the distributional impact of nodal pricing would be needed before its application to households and small businesses should be considered.



The needs of current and future consumers

The challenge of tackling climate change will straddle, and impact, the lives of multiple generations. The generations who pay for the transition and those who benefit will differ. If we get it right, the benefits will be enduring while the costs will only be felt for a short period.

The periods over which costs are recovered will determine who pays for the transition. This does not mean that they will match the periods over which assets are used. But it can also reflect policy choices, and both consumer and investor needs.

Politics and consumer attitudes are likely to value the impact of an imminent bill more highly than those of one in the distant future: a bill to be paid tomorrow feels much more tangible than one to be paid in 2050. But we should be mindful that delaying action will only increase the costs of tackling climate change. As uncomfortable as it is for a consumer advocate to accept higher bills, it may be necessary for us to argue for some policies that result in this.

The needs of current and future consumers

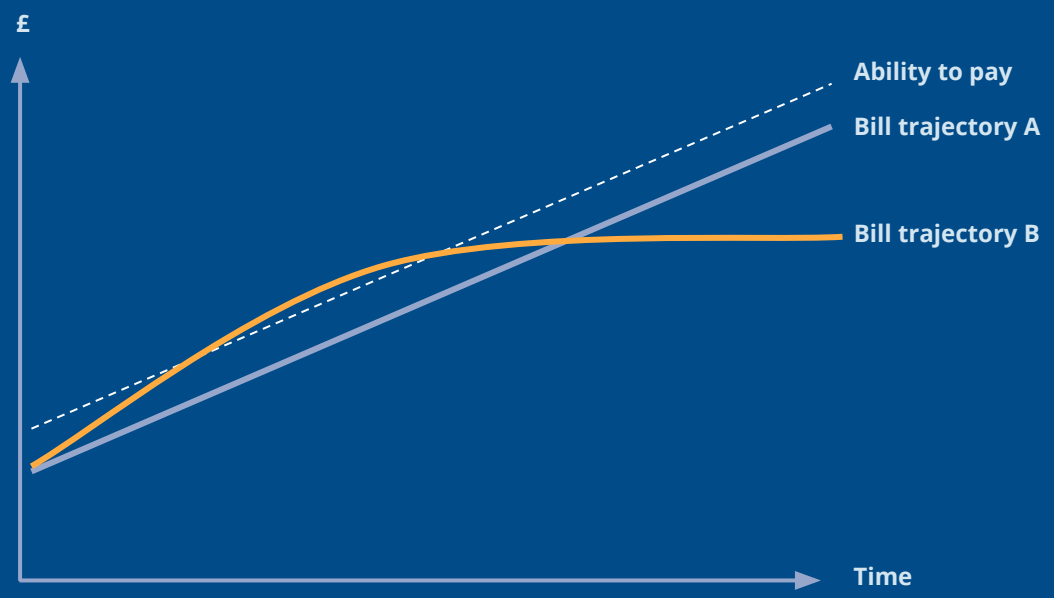
At the same time, we must be mindful that consumers have a veto on the transition. If the public don't support action being taken then it won't happen. Ensuring affordability will be crucial to this. This is likely to come in 2 parts.

Firstly, continuing targeted support for those who would otherwise face real hardship.

Secondly, ensuring that wider cost recovery ensures that bills are always affordable.

Affordability needs to be regarded as a continuum, rather than assessed at fixed points in time. The image to the right explains this point in a simplified way. It shows consumers' ability to pay increasing over time with wider economic growth. Two bill trajectories, A and B, are superimposed. The total cost of both trajectories is very similar - while B is more expensive than A in some periods, it is cheaper by a similar amount across other periods. B is also noticeably more affordable at the end of the time period shown.

But despite this, trajectory B is unlikely to be sustainable, because there are periods where it pushes bills above a level that consumers are able to afford.



We will continue to encourage policymakers to consider affordability as a continuum, rather than at fixed points in time. If the net zero transition is to take place, it's essential that energy bills are always affordable.

Tensions between our interests as consumers and as citizens

The statutory framework for both regulation and advocacy in the electricity and gas sectors refers to our interests in them as consumers. But what does that mean?

The Consumers, Estate Agents and Redress Act 2007, which establishes the legal framework for Citizens Advice to act as the consumer advocate for those sectors, notes that a 'consumer' is 'a person who purchases, uses or receives, in Great Britain, goods or services which are supplied in the course of a business carried on by the person supplying or seeking to supply them.' It goes on to define 'consumer matters' as 'the interests of consumers, and any matter connected with those interests.'

The reference to 'uses or receives' suggests that 'consumer' does not simply mean the person who pays the bill, but that it also covers everyone who uses electricity and gas. In a society where the use of energy is ubiquitous, almost everyone falls within this definition.

'The interests of consumers' are not defined. They could be interpreted quite narrowly, for example, simply in relation to the direct impact of energy services on their well being. Whether they receive good outcomes on value, choice and quality of service from the energy market, and so on.

But they could also be interpreted much more broadly, taking into account the indirect impact of those services on their wellbeing in other areas. For example, the impact that those services have on employment, or on the environment.

These narrow and broad definitions are sometimes characterised within the energy policy debate as representing the difference between our interests as bill-payers and as citizens - although as we explain above, in practice the definition of consumers can cover both.

Our engagement with energy policy issues has tended to focus on the more narrow definition of bill-payers.

Tensions between our interests as consumers and as citizens

This reflects the framework that the government and regulator have adopted. It is extremely rare to see an explicit assessment of the impact of energy policy decisions on jobs or prosperity, or on environmental matters that don't relate to greenhouse gas emissions.

It is also much easier for us to assess the direct impact of energy policy decisions on consumers than it is to judge their indirect impact. We have a deep and credible understanding of the impact of policies on consumers' experiences of energy markets. We don't have the same understanding of potential indirect impacts on employment markets, or air pollution. Ofgem and BEIS will face similar challenges. All 3 organisations will need to give further consideration to how to address this.

Notwithstanding these constraints, it is appropriate for us to consider whether there are wider benefits to society resulting from energy policy choices, to the extent to which available evidence allows us to do so.

An example of the type of policy area where this may be relevant is in consideration of the impact of investments in low carbon generation or energy efficiency. One could see scenarios where the choice is between a lowest cost pathway that involved importing all the technologies and materials required, and higher cost pathways where supply chain requirements required that a proportion was sourced from the UK.

In this example, there is a potential trade-off between our best interests as energy bill-payers, which are likely to be best served by the lowest cost pathway, and our wider interests as citizens, which may be better served by a higher cost pathway that creates jobs and skills in the UK.

While the direct impacts of policies on energy consumers may be much more easily assessed than their indirect impact on wider society, we'll pay regard to those wider impacts where it's practical to assess them. We'll encourage policymakers to draw out the broader implications of their proposals on society.

Managing these trade-offs

We developed this paper in part in response to feedback from some stakeholders that they would welcome more information on how we approach the many trade-offs inherent in energy policy. We hope that this paper will help to provide that clarity.

We will continue to manage these trade-offs on a case-by-case basis. Being consistent, transparent and accountable is important to us, and we will work to ensure that our individual positions are mutually consistent and coherent, so that our stakeholders can understand why we take the positions that we do, and can understand how we are likely to approach new issues.

But we don't believe it would be practical or wise to try and develop a mechanistic approach to assessing these trade-offs.

The world is too complicated to be expressed through a simple mathematical formula. Because of these complexities, we will favour real-world trialling of technical solutions before wider adoption where this is possible. We'll also give weight to lived experience, making use of the data that comes from our local offices, website and Extra Help Unit to build an evidenced picture of consumers' wants and needs.

We will continue to show a justified bias towards those who most need our help - the disempowered, those on low incomes, and those in vulnerable situations. We will do this to achieve change for our clients including those groups that may be small in number but which experience intense disadvantage, detriment or harm to their well-being and refine our processes to ensure we can better identify and consider these needs.

We'll also be mindful of the practical environment in which we operate and of how economic, political and infrastructural constraints may limit or shape what is possible. We'll prioritise deliverable good solutions over undeliverable perfect ones, while always being stretching in our asks from government, regulators and industry.

References

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5. Citizens Advice is calling for the government to establish a *net zero homes guarantee.* This would be a government-backed scheme focused on giving people confidence to install low carbon heating systems or energy efficiency measures. The guarantee would help people to make informed decisions, and establish simple, enforceable, protections, so people can engage with confidence. It must include support for people through funding, finance and incentives.
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Citizens Advice helps people find a way forward.

We provide free, confidential and independent advice to help people overcome their problems.

We are a voice for our clients and consumers on the issues that matter to them.

We value diversity, champion equality, and challenge discrimination and harassment.

We're here for everyone.

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