

Future of Domestic Price Protection: New Economics Foundation consultation response

Policy briefing | Alex Chapman and Chaitanya Kumar | May 2024

Summary

(Please note that we have repurposed a previous submission to the regulator on standing charges reform to make this submission considering the significant overlap between the two)

NEF supports calls for the current system of energy billing and tariffs to be reformed. NEF's preferred approach is to integrate the removal of standing charges with a wider shift towards a rising block tariff (RBT) model. The advantages of such a shift are numerous, including impact across, equity, demand management, and green transition incentives. The shift has been made eminently achievable thanks to recent technological developments, and as demonstrated in other regions of the world.

No system is perfect, and if done crudely the shift to an RBT could harm a small number of high-consumption, low-income households. The nature of an RBT means that this group cannot experience gross harm from the shift. The RBT puts a safety net around the basic consumption of all households meaning, at worst, consumption falls back to average levels, not to poverty levels. A key advantage of our proposed shift is that in a well-designed RBT the vulnerable group is significantly smaller than the number of households that face fuel poverty under the current system. As such, a significantly smaller set of social tariffs or other financial support systems would be required to patch over the holes in the system.

Addressing the plight of the high-consumption, low-income, group of households is an urgent policy priority independent of the energy billing system. A mass housing retrofit campaign is urgently needed, and any shift to an RBT system should be coordinated with such a programme, rolled out progressively, alongside targeted action in low-income, low energy efficiency localities.

In the 'able-to-pay' middle-upper income brackets an RBT model is likely to have a transformative short-medium term impact on demand for energy efficiency measures and solar power. The system delivers a significant reduction in the pay-back time of such investments which would not be tied to a time-limited government grant.

The interaction of an RBT with new electric technologies requires careful consideration but does not represent an immovable barrier to an RBT. As electricity demand surges, driven in part by wider uptake of electric vehicles and heat pumps, there is a clear advantage to a billing model which delivers greater demand constraint. Roll-out of an RBT model would deliver a stronger incentive for households using heat pumps and electric vehicles to avail of time-of-use tariffs or, in the case of heat pumps, to cede a degree of heating control to their energy supplier as implicit in the 'energy as a service' concept. In addition to this, NEF proposes that households moving to an all-electric energy system be offered the

opportunity to draw across their allocation of cheap gas, as part of the first tier of an RBT, onto their electricity bill.

In addition to our preferred transition to an RBT energy billing model, NEF supports the moving of some legacy policy and fixed system costs onto general taxation. The progressive design of the tax system offers a fairer way to pay for national assets and social policies which benefit everyone.

NEF's work in this area

NEF has published three reports on the potential design of a rising block tariff energy billing system.

- Delivering a National Energy Guarantee (August 2023) which looks at how a rising block tariff might be rolled out as part of a phased package accompanying a mass housing retrofit programme
- The National Energy Guarantee (April 2023) which looks at the relative merits of different rising block tariff pricing structures in terms of their distributional impacts on household bills
- Warm Homes, Cool Planet (September 2022) which introduces the concept of, and rationale behind, a universal basic energy allowance

While these reports do not look directly at reforming the price cap, there are a number of insights relevant to the present Ofgem consultation.

The impact of standing charges

Firstly, price protection and reform of the price cap needs to consider the increasingly disproportionate role of standing charges on consumer bills. At the aggregate, whole-economy level, standing charges are regressive. On average, less wealthy and lower-income households use less energy yet pay the same standing charge in absolute terms, and a larger amount in proportion to their usage, their bill, and their income.

The question of whether standing charges are 'fair' and/or 'effective' is more complex as there are a wide range of different household contexts. It is also relevant that there are some costs of running the energy system which are fixed and do not flex according to demand. However, these components of the system cost are not directly linked to the standing charge. There are differing opinions as to whether it is 'fair' to levy responsibility for paying fixed system costs according to usage.

From the perspective of economic justice, it is relevant that a minority of low-income, high-energy consuming households, receive some cost protection within the existing model, when compared to a world in which standing charges are levied at a level proportionate to energy usage. However, it is vital to note that this element of 'social protection' is delivered incredibly inefficiently, as the same mechanism delivers an effective bill reduction to a much larger group of higher-income households, and this 'cross-subsidy' is provided by disproportionately poorer households.

While the distributional impacts of the energy billing system are of critical importance, regulators must also consider the system's interaction with other policy objectives, notably the climate change imperative and the resilience of the energy system. A key consideration, and argument against the utility of standing charges is that they penalise low-energy consumers at the same level as high-consumers. In an era in which both carbon emissions, and high energy demand are of concern, this runs counter to our wider national objectives.

Rising block tariffs

There is significant overlap in the effects of removing standing charges (either via moving them onto volumetric charges or general taxation) and the shift to a rising block tariff approach. Both approaches have benefits including:

- More progressive socioeconomic distribution of average impacts
- Stronger protection against default/disconnection due to financial arrears among the large group of less-well-off, and lower energy consuming, households
- Better price signals helping constrain demand
- Greater return on investment in energy efficiency measures and domestic renewables, with potential accelerating effect on decarbonization
- Depending on the design of the rising block tariff, this model can also provide a social safety net level of energy consumption below which virtually no household can fall

The size and distribution of these benefits vary based on the precise distribution of the price bands, as well as the extent and mode of government subsidisation (ranging through re-allocation of current supports such as the Winter Fuel Allowance, to new subsidies). The change is always progressive, but varies in degrees. NEF analysis has looked at various different ways in which price bands could be set. Broadly speaking:

- Removing standing charges and placing costs on current volumetric bills, or introducing a 'soft' rising block tariff, with blocks separated only slightly (e.g. two blocks with the higher tariff 5-10% above the lower) produces a 'soft' effect. The demand reduction incentive is modest, and therefore the improvement in the return on investment in energy efficiency is modest, and the size of the rise in bills experienced by high energy consumers is smaller.
- Removing standing charges and creating 3+ highly varying tariffs (e.g. one free energy band, a middle band, and a premium tariff 50% above the prevailing market rate) creates a much stronger price signal, and would accelerate decarbonisation. At the same time, this design increases the potential cost to high-consuming households that are unable to reduce their consumption.

NEF's analysis suggests the optimum approach is to phase the introduction of a rising block tariff by slowly separating the cheapest and most expensive tariffs over time. This allows time for high consuming households to take action to reduce their demand before more expensive premium tariffs are rolled out.

Two principle disadvantages have been identified by Ofgem:

- I. The impact on low income, high-consuming households
- II. The impact on the incentive to adopt technologies such as heat pumps and electric vehicles which are important to the green transition

NEF has put significant time into investigating the issue of low-income, high consuming households, and how they might be affected by a rising block tariff. Our findings are summarised below:

1. Regardless of the energy billing system in use, high-energy-consuming, low income households are a matter for concern. This group must urgently be assisted, and incentivised, to improve energy efficiency and reduce consumption while meeting energy needs. This usually means tackling poor quality housing. Our analysis identifies significant geographical concentration of this group in northern towns and cities, particularly (the 5 B's) Bradford, Blackpool, Burnley, Birmingham, and Blackburn. It is not the job of the energy billing system to solve this problem per-se, but the system should be sensitive to it. We proposed a phased approach to rolling out a rising block tariff which is carefully co-ordinated with a concerted retrofit campaign.
2. Under a rising block tariff model with a significantly cut-price, or free, bottom tariff, all households have a safety net placed around an essential level of consumption. So, while there may be a group of low income households who would lose out if they continued their high levels of consumption, those households only need to reduce their consumption to an average, or slightly above average level in order to experience no bill change, and their basic energy needs are completely protected. The system means they will be incentivised to cut usage, but cannot fall into energy poverty. Most households in the low-income, high user, category should also benefit from some form of social tariff.
3. No energy billing model is perfect, all models involve some undesirable outcomes. As long as the system remains privatised and monetised, some form of social tariff(s) is likely to be needed to provide additional protection to some households, the question is the size of the group requiring assistance. At present this takes forms such as the Warm Home Discount, Winter Fuel Allowance, and Cold Weather Payment. The current system is complex, with multiple forms of support, and the broader inadequacy of the system was exposed by the size of the additional supports that were required through 2022/23.
4. Under most forms of the rising block tariff model, the size of the vulnerable group is significantly smaller than in the current system, and it is easier to target with support. This is primarily because support can be targeted at the 'premium tariff'. Our analyses look at options such as excluding households in receipt of means-tested benefits from the premium tariff, and providing an additional block of cheap/free energy to households in receipt of disability and/or child benefits.

These approaches have significantly less deadweight than systems such as the Energy Price Guarantee and the Winter Fuel Payment because they are targeted only at high consuming households with a particular need. Ofgem's analysis shows how households in receipt of disability benefits and below poverty line could see bills rise (albeit modestly) if a part of the standing charge is moved onto volumetric charge. Our proposed approach would ensure everybody in receipt of benefits would never breach the premium tier and as a result would see a net reduction in their energy bills compared to the current scenario.

This combination of tariff design with a concurrent programme of home retrofitting and a better targeted social tariff via the benefit system should create a system that can protect most households that are vulnerable with low incomes and high consumption.

Green Transition and new electric technology

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A key advantage of shifting standing charges onto volumetric bills and further to reforming the system into an RBT model is its impact on the incentives for able-to-pay households to install energy efficiency improvements and solar panels. Introduction of a premium energy consumption tariff at 30% above market prices delivers a 30% reduction in the payback time of such investments for households consuming larger amounts of energy in this top tariff. This simple change could deliver a transformational incentive, especially if supported by greater availability of retrofit advice and 'green' loans. Unlike recent government grant schemes the incentive would be permanent, and would come at little-to-no cost to the Treasury.

The interaction of moving standing charges onto volumetric bills, or into an RBT, with new electric technologies requires careful consideration, but does not represent an immovable barrier. As electricity demand surges, driven in part by wider uptake of electric vehicles and heat pumps, there is a clear advantage to a billing model which delivers greater demand constraint - as implicit in both of the aforementioned options. Roll-out of an RBT model would deliver a stronger incentive for households using heat pumps and electric vehicles to avail of time-of-use tariffs or, in the case of heat pumps, to cede a degree of heating control to their energy supplier (as implicit in the 'energy as a service' concept which has been gaining traction). With this in mind, we propose that an RBT model might only be extended to peak-time usage.

Another option, which NEF has modelled in its recent reports, is the proposal that households moving to an all-electric energy system be offered the opportunity to draw across their allocation of cheap/free gas onto their electricity bill. This option might perform both a practical, and optical/communications function in incentivising the necessary shift away from gas. The precise cost of such a move varies greatly depending on the tariff levels set, but it is possible that a modest government subsidy might be needed to support such a move.

Alternative mechanisms to pay for fixed costs

Considering that a significant portion of the standing charges are network costs (eg. 60% of electricity standing charges), it is critical that Ofgem and the government explore alternatives to paying for such costs. As we move towards greater electrification of heat, electricity network costs are set to increase significantly with National Grid estimating £54bn of new investment in upgrading the GB network by 2030.

Concurrently, the consultancy Arup estimates that the cost of decommissioning the gas grid and disconnecting households off the grid could amount to £79bn between 2030 and 2050.

These are significant costs which will likely be recouped, under current tariff design, via consumer bills and in particular through the standing charges.

Economic efficiency dictates that volumetric charging is more applicable to recoup costs that vary with consumption. The incentives for behind-the-meter generation increase if more of the system's fixed costs are moved onto volumetric charging, generating distributional issues. This was the basis of Ofgem's decision under its Targeted Charging Review which led to the increase of standing charges to recover roughly half of the £11bn in annual network costs. A reversion to the previous system, pre-2022 will not yield the necessary outcomes in terms of protection for households.

However, there is a strong case for cost recovery through alternative mechanisms such as the more progressive income tax system. We recommend that the legacy costs associated with the energy system (policy and fixed costs of maintaining the existing network assets) and future decommissioning & customer disconnection costs could be funded through general tax. Considering the fact that these costs are inevitable, amount to tens of billions and constitute the maintenance or decommissioning of public infrastructure of the country that everybody relies on, taxpayer funding provides a suitable, progressive alternative.

Such a move should be introduced in parallel to the block tariff where the burden of legacy costs are redistributed progressively and the remaining standing charges are distributed volumetrically with higher energy users paying a higher share of the fixed costs. This retains the strong incentive for energy demand reduction, protects vulnerable households and allows suppliers to offer innovative tariffs for cost recovery to specific consumer classes.

Conclusion

The New Economics Foundation argues that price reform should include removal of standing charges. Volumetric costs should be integrated into a new rising block tariff model while some legacy fixed costs would preferably be moved onto general taxation. This system should be rolled out progressively, alongside a comprehensive home upgrade programme targeted at low-income, high-energy-consumption households. The result will be a fairer energy billing system, with a stronger built-in incentive for energy efficiency, and a safety net against energy poverty for all.

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