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The Cost of Electricity in the UK: Drivers, Challenges and Opportunities for Reform

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Contents

List of Abbreviations and Acronyms

AAHED	Assistance for Areas with High Electricity Distribution Costs
AR7	Allocation Round 7
BAU	Business-as-usual
BSUoS	Balancing System Use of Service
BUS	Boiler Upgrade Scheme
CCGT	Combined Cycle Gas Turbine
CfD	Contracts for Difference
CLF	Consumer-led flexibility
CM	Capacity Market
CoC	Cost of Capital
CP2030	Clean Power 2030
CPS	Carbon Price Support
CSNP	Centralised Strategic Network Plan
DESNZ	Department of Energy Security and Net Zero
DNOs	Distribution Network Operators
DRC	Debt-related Costs
DSR	demand-side response
DUoS	Distribution Use of System
EBIT	Earnings Before Interest and Taxes
ECO	Energy Company Obligation
ED3	RIIO-ED3
EGL	Energy Generator Levy
EIM	European Internal Market
ETS	UK Emissions Trading Scheme (UK ETS)
EV	Electric vehicle
FiT	Feed-in-Tariff
GDP	Gross Domestic Product
HHS	Half-hourly Settlement
IC	Industry Charge
LILEE	Low Income Low Energy Efficiency
LNG	Liquefied Natural Gas

LPG	Liquid Petroleum Gas
MCDA	Multi-Criteria Decision Analysis
MHHS	Mandatory Half-hourly Settlement
NCC	Non-Commodity Costs
NESO	National Energy System Operator
NPV	Net Present Value
nRAB	Nuclear Regulated Asset Base
RAB	Regulated Asset Base
RECCo	Retail Energy Code Company
RESPs	Regional Energy Strategic Plans
RIIO	Ofgem's price control framework (Revenue = Incentives+Innovation+Outputs)
RIIO-3	Current RIIO framework covering gas transmission, gas distribution and electricity transmission
RIIO-ED3	Current RIIO framework covering Electricity Distribution
RNP	RNP Reformed National Pricing
RO	Renewables Obligation
ROC	Renewable Obligation Certificates
SAR	Special Administration Regime
SoLR	Supplier of Last Resort
SSEP	SSEP & NESO Strategic Spatial Energy Plan
SSES	Smart and Secure Electricity System
TNOs	Transmission Network Operators
TNUoS	Transmission Network Use of System
TOU	Time-of-Use (e.g. tariffs)
UKERC	The UK Energy Research Centre
VAT	Value Added Tax
WHD	Warm Home Discount

Executive Summary

With the UK facing its second energy crisis in five years, debate around how to reform domestic electricity prices is back in full force. The high cost of power adds to the cost-of-living crisis and makes the planned electrification of heating and transport more challenging. The conflict in the Persian Gulf has exposed, yet again, how vulnerable UK energy prices are to geopolitical events and has made concerns more acute and urgent.

This UKERC Briefing Paper, produced as part of UKERC's Whole Systems Mission on Energy Bills,[1] provides an analysis of the drivers behind high electricity bills, the expected trajectory of bill components through 2030, and the policy and market reforms that could meaningfully reduce costs for UK households. It draws on a decade of Ofgem energy price data, original UKERC analysis, expert workshop findings, and a wide body of grey and academic literature. It lays a foundation for our subsequent work to explore specific options and a package of reforms.

Drivers of High Electricity Bills

Over the last decade, average annual domestic electricity bills have grown in real terms from £643 to £968, driven by a combination of wholesale costs, network costs, operating costs and policy costs. Gas-linked wholesale prices have been the most volatile component, spiking by 381% between 2021 and 2023 following Russia's invasion of Ukraine. While government action in April 2026, moving a proportion of policy costs from electricity bills to general taxation, delivered a reduction of approximately £100 per household, the escalating conflict in the Persian Gulf has already overwhelmed much of this progress. Ofgem has confirmed a typical £221 per year (13%) price increase for the July–September 2026 dual fuel price cap.

Key drivers that will affect the cost of power in the next few years include substantial investments in maintaining and expanding networks. Network costs are set to rise in the short to medium-term to fund transmission upgrades, grid reinforcement and the replacement of ageing network assets. Wholesale costs are expected to fall in the medium-term, with increasing renewable energy capacity under a fixed price contract. Policy costs are not expected to rise meaningfully in the next few years.

High gas dependence, low gas storage and the strong link between gas and electricity prices make both gas and electricity bills in the UK particularly vulnerable to fossil fuel price volatility. Individual fossil fuel energy crises each have the potential to be more expensive for the UK than the transition to net zero by 2050.[2] New approaches to reducing energy bills are needed which are cost-effective, compatible with clean power goals and address the urgent acute pressures from the latest energy crisis.

Evaluating Reforms

Reducing bills will require a package of measures. Evaluating and prioritising the wide range of options for reducing bills will require focused and rigorous assessment against multiple goals and a backdrop of significant changes in supply and demand. Most of the UK public still supports the push to renewable energy and net zero, but the number in favour of the 2050 timeline for net zero has weakened in recent years. Opinion polls indicate a failure to communicate the broad public support for clean power and to tell the story of the strong progress already made with clean power. One-sided coverage in some parts of the news media is likely to have contributed to this and continues to pose risks to even-handed debate of policy options. This suggests that a key challenge for policymakers and expert commentators alike is to communicate

effectively and transparently explain the complexities and trade-offs inherent to the energy transition. This report helps address the need for credible and objective communication of what drives energy bills up or down and the role of energy policies in this highly contested space.

Key Reforms

There will inevitably be social and political choices needed to manage multiple trade-offs when designing reforms. These include: the long term vs short term; several trade-offs involving the redistribution of costs and benefits among stakeholders; and between complexity, cost reflectivity and perceptions of fairness. Several potential areas of focus emerge for reducing electricity bills in the UK:

- The influence of gas on electricity prices is already weakening and will be further aided by recently announced Government plans to shift older renewable schemes onto a fixed payment model for part of their revenue. However, more ambitious proposals that come closer to UKERC's more ambitious Pot Zero proposal could deliver substantially greater reductions and provide benefits to generators and consumers alike as older renewable generators come to the end of legacy support schemes.

- Rising system costs driven by constraint and curtailment are another area requiring urgent attention. Reform is already underway, with Government currently consulting on Reformed National Pricing (RNP). It is also important to improve the operational efficiency of the Balancing Mechanism, introduce lower thresholds for participation, and introduce constraint markets.

- More immediate bill reductions are likely to be achieved through changes to how bills are structured and taxed. Permanently shifting the remaining policy costs levied on electricity into general taxation could reduce bills by as much as 10%, while reforming the Debt-Related Costs allowance could substantially ease the burden on households paying by Standard Credit.

- As fixed costs are expected to continue rising, a tiered standing charge could offer a more progressive and publicly acceptable approach to cost recovery. Tariff reform and direct support can also target the most vulnerable, although the effectiveness of any targeted support measures will depend on improving the quality and availability of data to identify those most in need.

- Stronger consumer-led flexibility would reduce whole-system costs for all bill-payers, while also delivering direct savings for those households able to shift their demand. This outcome would be further enabled by removing remaining levies from electricity bills to strengthen time-of-use price signals.

- Finally, accelerating electrification offers a structural opportunity to spread fixed costs across growing demand for electricity. Wider adoption of heat pumps and electric vehicles would be supported by action to reduce the price of electricity relative to gas. This would then self-reinforce, with a growing customer base shifting end use away from volatile fossil fuels and reducing electricity unit costs for all.

1. Introduction

With the UK facing its second energy crisis in five years, debate around how to reduce domestic electricity prices – which consistently rank among the highest in Europe[3] – is back in full force.

While government action to move a proportion of policy costs on bills to general taxation from April 2026 helped to reduce the cost of electricity by ~£100 per household, the escalating conflict in the Persian Gulf has exposed, yet again, how vulnerable UK prices are to geopolitical events over which it has little control. The long-term impact of the war on electricity prices remains to be seen; however, estimates about how this will feed into consumer bills in the short term are not positive. Ofgem have announced a typical £221 per year price increase (13%) in the July-Sept dual fuel price cap compared to April 2026.[4]

The cost of electricity in the UK has become high profile and contested in recent years. This has made the topic of bills particularly vulnerable to misinformation, requiring additional nuance and context to dispel. The media debate appears to have given rise to a variety of oversimplifications of what has driven up energy bills and about the cost of Net Zero.[5] This may be playing a role in some shift in support for the Net Zero 2050 target[6] at a time when concern about paying bills is high.[7]

There are several points to be made about not oversimplifying the relationship between electricity prices and the UK's clean energy transition. First, assessing the value of the transition simply in terms of whether it is cheaper than maintaining a business-as-usual (BAU), fossil-fuel heavy system risks losing sight of the primary reason the UK has pledged to reach net zero – to address climate change. Second, the costs and savings associated with the transition are complex and cannot straightforwardly be characterised as cheap or expensive – this is relative to factors which are unpredictable, such as the future cost of gas.

If we take a short-term view of the impact of the energy transition on bills, we can see this complexity more clearly. On the one hand, the UK's renewable fleet has already helped to better protect consumers during this current energy crisis than it did in 2022-23; the Department for Energy Security and Net Zero (DESNZ) estimate that gas has dropped from setting the price of electricity around 90% of the time in the early 2020s to around 60% in 2026.[8] On the other hand, the upgrades and improvements required to enable a successful transition – e.g. the build out of transmission and distribution network infrastructure – require substantial upfront investment in the short term, which is already being paid for by consumers who will not benefit materially from these investments for several years.

These 'growing pains' of the transition should subside over the longer term: the Climate Change Committee's proposed Balanced Pathway to Net Zero[9] finds that in all scenarios achieving net zero is a more cost-effective path for the UK economy than continued reliance on fossil fuels, bringing a net benefit to society even before considering the value of

co-benefits[i] (such as air quality) and the avoided costs of climate damages.[ii]

In March, the UK Government declared its intent to pursue independence and security and to "*learn the right long-term lessons*" from the Iran crisis by speeding up the transition to homegrown renewables, retaining windfall taxes on oil and gas companies and refusing new North Sea exploration licenses.[10] In April, two measures to support this intention and de-link gas and electricity prices were announced. The first is a variation of UKERC's 'Pot Zero' proposal, the wholesale market Contract for Difference (WCfD), which would entail older low carbon generators voluntarily shifting onto long-term fixed contracts for the wholesale market price fraction of their revenues. The second, an updated Electricity Generator Levy, increases tax on excess profits from 45% to 55%.

Still, there is more to be done to reduce bills. In particular, any reforms to reduce the cost of electricity must be cognisant of what can and cannot work in a UK context. This requires an understanding of the systemic realities of the UK energy market, including the influence of policy and regulatory decisions carried over from previous decades, as well as new frameworks – often still in their infancy – introduced to support the transition to a renewable energy system.

In this UKERC Briefing Paper, we draw on Ofgem energy price data, original UKERC analysis, and findings from an expert workshop,[iii] to consider the context for reforms: the drivers of high prices, UK energy markets and policies, and the challenges the UK must navigate in coming years on its path to a clean, secure and affordable energy system. We also provide information about topics which frequently surface in discussion about how UK electricity costs are recovered (e.g. standing

charges, the Ofgem price cap), but whose nuances are often lost in public discourse. From this foundation, the report discusses challenges and opportunities for electricity bill reform and identifies proposals which have promise for reducing electricity bills. Section 2 reviews narratives, perceptions and myths around electricity bills, focusing on how public concerns over energy bills, attitudes to net zero goals, how they are evolving with high energy prices and their respective coverage in the media. Section 3 reviews the past and present drivers of UK household electricity bills including potential impacts of the Iran War and related policy action. Section 4 reviews the expected future drivers of bills to 2030. Section 5 offers a summary of the challenges, opportunities and trade-offs involved in designing policy and market reforms that could reduce electricity bills and help support a successful transition to an affordable, clean, secure and fair energy system. The paper concludes with a discussion of some areas of focus, and proposals for reforms, with potential to reduce bills in the UK.

i Estimated at £2.4–£8.2 billion per year in net benefit by 2050, largely due to positive health effects.[9]

ii Estimated at £40-130 bn in damages within the UK in 2050.[9]

iii Held in November 2025.

2. Narratives, Perceptions & Myths

Public perceptions affect support for government action, trust in energy companies, and confidence to adopt technologies and tariffs that could reduce bills. In this section we look at public sentiment regarding energy bills and net zero goals, and the role of coverage in the news media. We highlight gaps in awareness, changes in attitudes in recent years and the increasing need for accurate communication around energy costs and policy.

Public Perceptions of Energy Bills and Net Zero

The DESNZ Public Attitudes Tracker data shows that energy bills are typically a greater source of concern than other household bills such as food or transport: 52% of respondents report being 'very' or 'fairly' worried about paying their energy bills and 22% report reducing their energy use below what is comfortable, though these 2025 figures are both lower than levels seen in 2023.[7]

In survey research asking, "*What do you think is most responsible for high energy bills in the UK?*", the most popular answer was "*greed of energy company bosses*" (selected by 51% of Britons).[11] For comparison, just 15% of respondents in this 2025 survey held 'net zero targets' to be most responsible, and the public are over twice as likely to say that energy bills will be cheaper if they come from wind and solar (40%) than that they will be cheaper coming from oil and gas (17%).[11] As of Spring 2025, 80% of the UK public still either 'support' or 'strongly support' the use of renewable energy for providing our electricity, fuel and heat. While support is highest for solar, all renewable sources are viewed much more favourably than coal, oil and gas.[12] Climate Barometer polling finds that the majority of the public would support a new solar park, wind farm or power lines carrying renewable energy being built in their area. This majority holds across all voting intentions.[13]

The majority of citizens are, however, uncertain about whether to trust both fossil fuel and renewable energy companies and government regarding the energy transition.[11] When asked specifically about which actions by the UK government had most contributed to high or rising energy bills, the most popular reasons chosen were: privatising energy companies; failing to reform the energy market; and favouring the interests of energy companies over consumers (all chosen by around 35% of respondents).[14]

UK public attitudes to energy bills and clean power goals are complex and splintered, but across the corpus of tracker surveys there are indications in recent years of some weakening of support for the net zero 2050 target. Ipsos surveys on public attitudes to net zero and

climate policy[6] find that in 2021 87% of the public supported a net zero target of 2050 or earlier; in summer 2025 this had decreased to 64% (another poll reports a similar figure of 60%),[15] with those opposed to net zero or preferring a slower transition rising from 9% to 26%. Those blaming high bills on climate change initiatives were a small minority in 2022 but doubled to 24% in 2025, while those who think a faster green transition would have helped reduce bills fell by half (from 32% to 17%).[14]

Perception Gaps

There is also evidence of a 'perception gap', in the UK and elsewhere, whereby the public consistently underestimates popular support for climate policies.[16,17] For example, in 2025, 66% of UK adults would support a new onshore wind farm being built in their area, with only 21% opposing, but their perception is that only 20% would support it and 33% would oppose.[18] Similarly, 70% would support a solar farm, and 19% oppose, but survey respondents estimate that support and opposition are equal at 27%.[18] A similar perception gap exists for 'new pylons and power lines for carrying renewable energy being built in your area'.[18] This gap also exists among UK Members of Parliament, who underestimate even more the public support for, and willingness to accept the financial impacts of, climate policies, especially among Conservative voters.[18,19,20,21]

A second gap in awareness concerns public perception of energy policy and progress towards net zero. Renewables provided over half of the UK's electricity in 2024.[22] A transition from coal to natural gas and renewables for electricity generation was the largest factor in reducing UK total greenhouse gas emissions by 54%, and electricity supply emissions by 82%,[23] between 1990 and 2025. Despite this, just 26% of the UK public think that climate policies have actually made a difference to reducing UK emissions.[11] There has been a failure to communicate the broad public support for clean power and to tell the story that substantial progress has already been made in building out renewable energy and driving down emissions.

Media Representation

While the impact of exposure to representations of the drivers of energy prices, climate policy and energy security in media is complex,[iv] analysis of news media coverage suggests it is a likely contributor to the perception gaps and recent weakening of support for the net zero 2050 timeline outlined above.

Nearly 100 UK newspaper editorials voiced opposition to climate action in 2025 – more than double the number of editorials that backed climate action.[24] Another analysis of 500 articles published in 2023 found that whilst clear inaccuracies are rare, misleading claims and one-sided arguments are common, especially in editorials and opinion pieces in some newspapers.[25] Popular framings in these pieces tend to stress present political actors and energy regulators at the national level as the primary figures responsible for either the crisis or its mitigation rather than blaming global markets or events.[26] The same research also found a shift from focussing on issues of energy dependency and sustainability to a focus on the cost of living and fairness.

Analysis of the representation of energy and climate issues in the media highlights a number of oversimplifications. These include: covering 'net zero' without mention of climate change;[27] renewables and green levies have forced up bills; fracking in the UK would reduce energy bills; and that the UK target of net zero is unaffordable.[28,29] Recent coverage has sometimes conflated the cost of delivering net zero with costs that would be incurred even without net zero,[30,31] such as maintaining an ageing power grid. This underlines the need to communicate clearly the counterfactual for the BAU costs of *not* doing net zero.

Iran War

The above survey data on public attitudes do not reflect the impact of the recent outbreak of hostilities in the Persian Gulf in late February 2026. Energy suppliers initially responded by withdrawing or raising fixed rate energy deals[32] and the recently-announced Ofgem Price Cap for July to September shows a typical household price jump of £221 per year compared to April 2026. There have also been steep rises in the price of petrol and diesel[33] and heating oil,[34] not covered by the price cap. Over eighty percent of Britons now express concern about the impact of the US/Israel-Iran conflict on the price of fuel and energy, on the wider UK economy[35] and on grocery bills.[36] This is in line with levels of concern at the start of the Ukraine conflict in 2022.

This market volatility and consumer anxiety adds further urgency to how Government will address the price of energy and communicate this to the public. The opinion polling and analysis of media content shows there is a need for credible and balanced communication of what drives energy bills up or down and the role of energy policies in this. In Sections 3 and 4 we explore the drivers of bills in recent years and expectations for the future.

iv The picture is varied but some of the most influential negative media myths appear to involve EVs and heat pumps.[18]

3. Drivers of High Electricity Bills 2015-2026

In this section we investigate how electricity bill components in the UK have changed over the last decade and set out the drivers of past and present price fluctuations.

Our previous paper, comparing drivers of bills between 2021 and 2025, revealed that the single largest increase in bills over this time period was driven by gas-linked wholesale fuel prices, representing 66% of the overall increase.[37] It is this link between volatile gas prices and consumer electricity bills which has been brought to the fore again as the UK finds itself in yet another energy crisis.

Below, we examine how bill components have fluctuated over a longer time period, using Ofgem Price Cap data. Figure 1 shows the increase in bill components from 2015 through to 2026. We adjusted for inflation to account for the real terms increase in prices over that time period. The final bar on the chart only shows the April – June 2026 bill, to highlight cost changes as a result of Government's 2025 Autumn Budget decision to move a proportion of policy costs to general taxation. See Box 1. for an overview of Ofgem price cap data functionality and limitations for modelling bills.

How Electricity Bill Components Have Changed 2015-2026

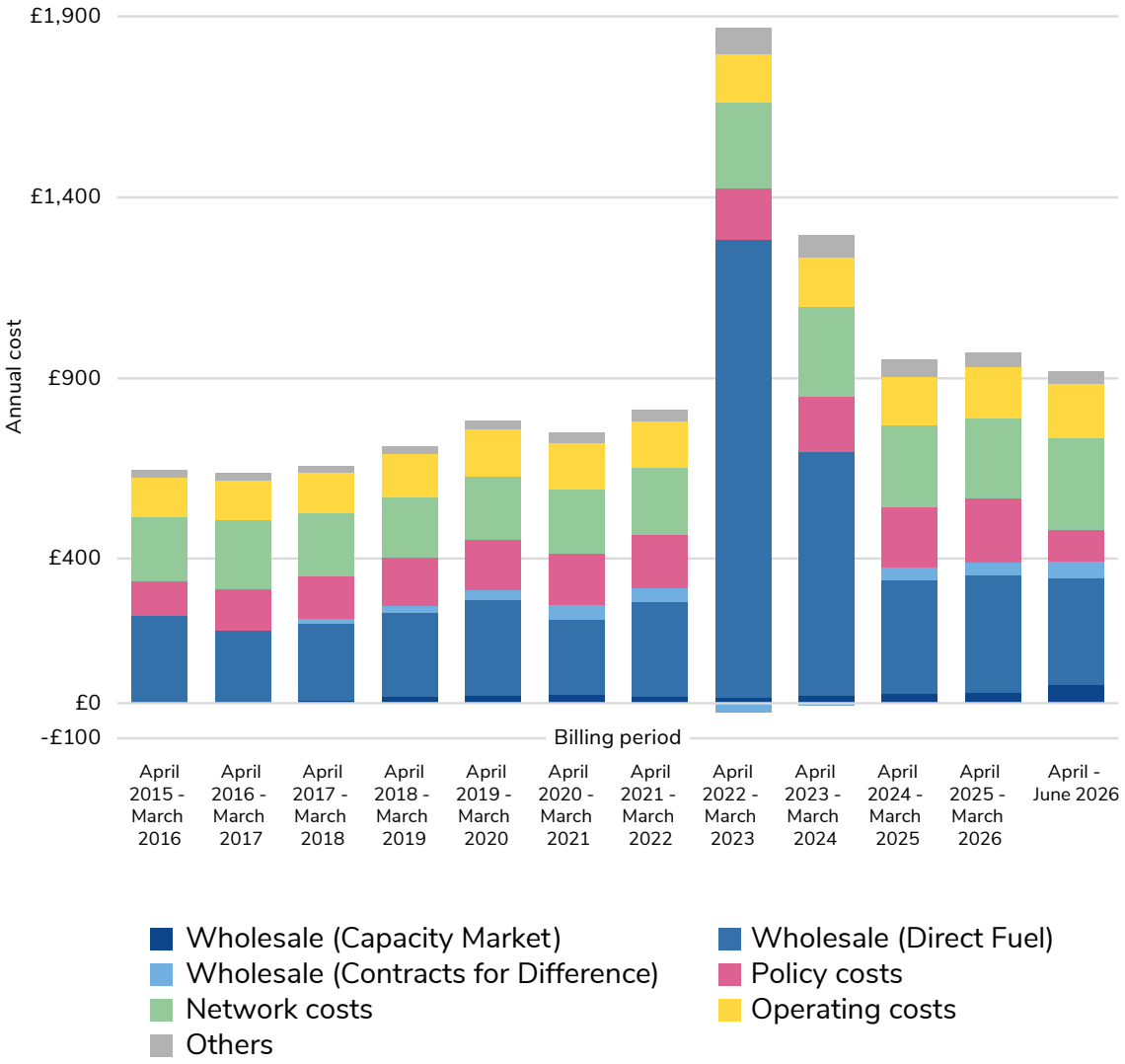


Figure 1: Change in average UK household electricity bills[v] 2015/2016 – 2025/26 (real terms)[38]

v Figure shows average household on Direct Debit with 3,100kWh annual consumption value.

A Ten Year Retrospective: April 2015 to March 2026

Over the last decade, average domestic electricity bills have grown from £643 to £968 in real terms – a £325 increase. From the perspective of individual bill components, policy and wholesale fuel costs[vi] are responsible for roughly half (51%) of this £325 increase in costs, with policy costs representing 26% (£85) and wholesale fuel representing 25% (£81) of this growth respectively. The policy component includes the cost of renewable support schemes, which grew by £58 (from £67 in 2015 to £125 by March 2026), as well as social schemes to improve home heating and energy efficiency, which grew by £19 (from £25 to £44 by March 2026). In third position, network costs represent 15% (£50) of the increase. Smaller contributors to the increased cost of electricity include operating costs, which went up by £31, Capacity Market costs,[vii] which grew to £28 and 'other' costs (Headroom and EBIT) which increased by £20. We discuss the costs included in each of these components in more detail in 3.2.

Looking at the components which made up the average 2025/26 bill, wholesale fuel costs represented the most significant 'chunk' of the overall bill (34%), followed by network costs (23%) and policy costs (18%).

Bills Post-Budget: April – June 2026

From April 2026, the cost profile of the typical electricity bill has shifted: wholesale costs still represent the largest overall contribution to high electricity bills (£298 or 32%), while network costs now make up almost 1/3rd (£252) and policy costs only represent 1/10th (£90) of the bill.

More specifically, a comparison of the 2025/26 average bill and April-June bill shows an £88 drop in policy costs for the average consumer, equivalent to a 51% reduction. Consumers now pay £4 less in real terms towards policy costs than they did in 2015. This change comes as a result of Government's 2025 Autumn Budget decision to move 75% of the Renewables Obligation (RO) costs to general taxation and scrap the Energy Company Obligation (ECO) (now delayed until Dec 2026). While this has improved the electricity-to-gas cost ratio (the 'spark gap'), a number of policy costs on bills – including the new nuclear RAB, the Warm Home Discount etc. – still remain.

Other substantial changes from April include the recent increase in network costs. These have primarily been driven by accelerated transmission network investment, to address challenges around bottlenecks and connection queues. More specifically, under Ofgem's RIIO 3 regulatory period, Transmission Network Operators (TNOs) have been granted new revenue allowances to fund anticipatory network investment, which is already being recouped through consumer bills. Our analysis shows that network costs jumped to £252 in the April-June 2026 price cap, a £31 increase compared to the previous years' average.

vi This refers to direct wholesale fuel (see 'Wholesale (Direct Fuel' in Fig. 1), and not the Capacity Market or Contracts for Difference

vii Only added to the bill in 2017.

Box 1: Ofgem Price Cap data and distributional impacts

Our above analysis of bills uses Ofgem Price Cap data for:

- A typical household on a Standard Variable tariff
- Paying by Direct Debit
- On dual fuel
- Uses an average of price cap regional variations

In 2019, Ofgem introduced a price cap that sets a maximum unit rate and standing charge. For April to June 2026, the headline price cap (incl. VAT) is set at 24.67 p/kWh for electricity and 5.74 p/kWh for gas, plus standing charges of 57.21p for electricity and 29.09p/day for gas (average across England, Scotland and Wales).[39] This is £1,641 per year for a typical household who use electricity and gas and pays by Direct Debit.

While the data provides an accurate guide to fluctuation in unit prices charged to most households, there are some limitations with using Ofgem price cap data to explore consumer energy bills that should be noted. These mean that using the Price Cap data masks some important distributional aspects of bills.

Ofgem recently updated the assumptions about typical household consumption used in its price cap methodology, but typical bills under the price cap do not reflect variation across households due to differing levels of consumption.

- The relatively high unit cost of electricity relative to gas means that households reliant on direct electric heating are most affected by higher electricity prices.
- Dual/Multi-rate meter households are usually dependent on direct electric heating and typically have electricity consumption around 45% higher than households with a single rate meter[viii]. In January 2026 the price cap rise meant dual fuel homes' bills rose by 0.2% (£3/yr) but for households with an Economy 7 meter, the increase was 4.3% (£51/yr).[40]

Further, the oft-cited headline price cap rates and corresponding typical annual bills do not reflect prices and bills charged under variations of the price cap:

- Significant regional variations exist in the standing charge rates (the standing charge component makes up around 25% of a typical electricity bill).
- The price cap is lower for households with Pre-Pay meters and is higher (by around £130/yr) for those on Standard Credit (paying on receipt of bill).[41]

Lastly, substantial numbers of households are not protected by the price cap at all:

- 35-40% of households are on Fixed Rate energy deals and these are not covered by the price cap.
- Heating oil and LPG are also excluded from cap and have been the first and worst affected by the Iran war. Around 1.5 million UK homes use heating oil; in Northern Ireland it is the most common heating source.[42]

Beyond these distributional impacts of current billing, some other 'winners' and losers' under current energy pricing can be identified. The cost to supply power to homes is highest during times of peak demand but most homes are on fixed-rate tariffs that do not reflect this; this means that consumers with high peak-time consumption (e.g. charging an electric vehicle at peak time) receive a cross-subsidy from households with low peak-time demand. The UK's Standing Charge means that these fixed daily costs are relatively cheaper for high-consumption and larger households.[43]

viii The current Typical Domestic Consumption Values (TDCVs) at medium consumption are 2,700kWh for electricity, 11,500 kWh for gas, and 3,900 kWh for multi-register meters such as Economy 7 customers (6,700 kWh for High Use homes).[4]

Drivers of Change In Electricity Bills (2015 – 2026)

We now look in more detail at why bill components have changed over the last decade. The following is not an exhaustive overview, but it highlights some of the drivers which have contributed to pushing up wholesale, network, policy and operating costs.

Wholesale Fuel Costs

Wholesale fuel prices have fluctuated significantly over the last decade, oscillating between their lowest of £199 in the 2016/17 period, and their highest of £1,270 in the 2022/23 period. The most obvious price spike over the ten-year period directly correlates with the 2022-2023 energy crisis, when wholesale fuel prices rose by 381% from £264 to £1,270. While the wholesale fuel component has dropped following the height of the crisis, its contribution to the bill remains above pre-crisis levels: wholesale fuel costs were still £62 higher in 2025/26 than in 2021/22.

A combination of factors are responsible for UK wholesale prices being particularly susceptible to price spikes: gas as the significant share of UK dispatchable power and how that affects wholesale electricity market prices, volatile global gas markets and market trading dynamics[ix].

The UK's current electricity mix means that gas is almost always the marginal fuel, even though it only accounts for a third of generation overall.[44] This is because the UK is still highly reliant on gas.

Box 2: Price formation in the GB wholesale power market

The UK wholesale electricity market operates on a 'marginal pricing' or 'pay-as-clear' basis, the system used consistently across most electricity markets worldwide. In this system, the price for all electricity generated in a given settlement period is set by the most expensive generator required to meet demand. Due to the UK's generation mix, this marginal generator is almost invariably a Combined Cycle Gas Turbine (CCGT). This mechanism means that even when the UK grid is 50% powered by wind generating at near-zero marginal cost, the price consumers pay is dictated by the cost of gas. This effect is significantly stronger in the UK than in any other major European economy due to several factors.

Firstly, the dispatchable power capacity of the UK is majority CCGT plant, compared to nuclear in France, hydropower in the Nordic nations, and a mix of coal, gas and hydro generation in Germany. The UK also has significantly fewer points of interconnection than in mainland Europe, meaning fewer opportunities to balance the system utilising marginal generation from neighbouring countries. Finally, the UK's limited gas storage capacity means that high international gas market prices feed quickly into UK spot generation costs.

Research from 2021 indicated that gas fired power plants set the wholesale electricity price in the UK 97% of the time. By comparison, gas set the price 7% of the time in France, due to the dominance of nuclear power, and gas set the price 24% of the time in Germany, with coal and renewables setting the price more frequently.

Since 2021, this link between UK gas and electricity prices has been changing. According to DESNZ, the UK has already moved from gas setting the price of electricity around 90% of the time in the early 2020s, to around 60% today.[8] This is largely as a result of changes in the generation mix – more renewables on fixed price contracts have come online – leading to a reduced dependency on gas to meet demand. In 2022 there were 141 connected low carbon generation projects on Contracts for Difference (CfD), but in 2026, this has already reached 562[45].

ix See Table 2: Summary of Expected Future Changes to GB Electricity Prices, for a more detailed overview of factors involved in driving up UK electricity costs.

The UK also imports 60% of its gas, which makes it more vulnerable to changes in international gas market prices. Global gas market prices are volatile, fluctuating in response to geopolitical conflicts, trade disputes, weather events and supply chain disruptions. In 2022, when Russia invaded Ukraine, the UK's susceptibility to changes in global gas markets meant it was particularly affected – resulting in the 381% jump in prices over the 2022-2023 period. The government intervened through the Energy Price Guarantee – which set maximum unit prices during the height of the crisis – at a cost of £29.4 billion overall[46].

This volatility feeds into market trading dynamics. Since daily spot prices on the wholesale market are highly variable, suppliers hedge against risks by securing forward-looking contracts and buying energy years in advance. Even if prices do remain stable, it has been noted that these hedging costs are regularly not passed down to consumers[47]. This, paired with the price cap mechanism, also leads to a "considerable time lag" between changes in the spot price of gas and electricity and changes in consumer prices.[46]

The Carbon Price Support (CPS) levy (frozen at £18/tonne since April 2016) also adds to the marginal cost of gas-fired generation and thus raises wholesale electricity prices. Analysis by the Centre for British Progress[48] found the mechanism cost consumers £1.6 billion in 2024 while raising only £440 million in Treasury revenue – making it an increasingly inefficient instrument (the rest of the cost largely goes as windfall benefits to some non-fossil generators). While the EU relies solely on the EU Emissions Trading System (EU ETS), the UK is the only country in Europe that imposes this additional, explicit carbon tax, so while the UK's ETS and CPS were highly effective in accelerating the phase-out of coal in the UK faster than many EU nations, it now incentivises more electricity imports from the EU. Following Brexit, GB also left the European Internal Market (EIM), which is estimated to have increased day ahead interconnector trading costs by £17m annually.[49]

In April 2026, the Government announced that the CPS Levy will be removed from bills by April 2028[50], saving the average household around £20/yr[51] on their electricity bill. This rather slow timeline is deemed necessary to ensure a smooth transition.

Policy Costs

The principle that revenue support for renewable electricity generators would be levied from electricity suppliers, with costs passed through to consumer bills, was introduced in 1990, when the Non-Fossil Fuel Obligation was introduced. A number of green and social policies have since been recovered largely through electricity bills, including the Renewables Obligation, Feed-in-Tariffs, Energy Companies Obligation, Warm Home Discount, and most recently, Nuclear Regulated Asset Base. Before the Government's Autumn Budget intervention in 2026, this resulted in policy costs levied on electricity bills at 20 times the rate of gas.[52] Box 3 shows an overview of how this has contributed to driving up the UK's 'spark gap'.

A direct comparison of how policy costs and wholesale fuel costs rose over the 2015-2026 period shows that while both components experienced similar overall price increases of ~£80, policy costs were subject to less volatility but more consistent year-on-year growth. The Renewables Obligation (RO) policy component, for instance, increased steadily by around £9 per year between 2015 and 2019, then by around £4 per year from 2020 onwards. The cumulative impact of this year-on-year increase meant that while the RO added ~£40 to the bill in March 2015, this had reached over £100 by March 2026 – before it was largely removed from domestic bills. More broadly, total policy costs increased by £40 between 2015 and 2019 – largely reflecting increases in the RO – followed by slower growth of £3-15 per year from 2020 onwards (averaging around £6.50 per year) until April 2026, after which costs fell by £88.

Box 3: Spark gap international comparisons

In the UK, the spark gap – the ratio of electricity prices to gas prices[x] – is the highest in Europe. This is a very challenging context for the key clean power goal of electrification of heat and transport. Broadly, a spark gap of two (or 2:1) or below is needed to make heat pump adoption cost-competitive with gas boiler replacement.[53]

The UK's current electricity-to-gas ratio is an outlier – a result in part of the decision to fund the Renewables Obligation (RO), Feed-in Tariffs (FiTs), and the Energy Company Obligation (ECO) through electricity bills rather than general taxation or gas bills. The 2025 Autumn Budget helped reduce the UK spark gap from a high of 4.7 in January 2026 to 4.3 in April when some policy costs on electricity bills moved into general taxation. In the Netherlands, the government in 2025 lowered electricity taxes and raised gas taxes to close the spark gap. Plans for a new voluntary Wholesale Contract for Difference (WCfD) for legacy generators, recently announced by the UK Government, will contribute to reducing the gap.

The spark gap can be affected by tariff choice – notably by time-of-use tariffs and flexibility in household consumption. Reflecting this time-of-use aspect, some nations have spark gaps that fluctuate widely as the price of electricity varies. For example, in Australia, electricity can be free when solar power is plentiful and, from summer 2026, energy retailers in three Australian states must provide at least three hours of free electricity daily to households.

Country	Electricity-to-Gas Price Ratio (approx..)	Drivers
United Kingdom	4.3 (as of April 2026)	Environmental/social levies (approx. 9% of electricity bill) and Nuclear RAB loaded onto electricity.
European Union (Avg)	2.5	More balanced levy distribution; use of general taxation for social costs.
France	2.2	Weaker link between gas and electricity prices and stable, low-cost nuclear power.
Netherlands	1.8	2025 Tax Reform: Electricity tax lowered, Gas tax raised significantly to force fuel switching.
Germany	3.3	Historically high but falling due to the transfer of EEG (*Erneuerbare-Energien-Gesetz*) levies to the state budget.
Australia	Highly variable	High gas costs in the East Coast market and extremely high solar penetration making midday electricity 'free' or negative.

Table 1: Spark Gap international comparison. Sources: [54,55]

x The ratio is usually based on unit price alone and not standing charges. In practice the cost-competitiveness of electricity to gas would include standing charges, within which there are also UK regional variations.

Network Costs

The network component of bills covers the cost of maintaining and operating the network, including costs to cover transmission, distribution and balancing of electricity. Network costs on electricity bills rose from £174 in 2015/16 to £221 in 2025/26 – a £47 or 27% increase over the decade. Network costs peaked in 2023/24, reaching £250, dropped slightly in the years following, and are now on the rise again.

While network costs largely stem from maintaining, updating and replacing transmission and distribution networks, the increase in costs in recent years (see the £250 peak in 2023/24) has primarily been driven by the rise in balancing (BSUoS) costs. These balancing costs have increased for several reasons: (1) increased intermittent renewable penetration has made balancing more complicated, and (2) a lack of anticipatory investment in transmission network capacity has created significant grid bottlenecks which drive up constraint and curtailment costs, particularly around Scottish transmission boundaries. It has also left the GB system struggling to connect new renewable assets to the grid in a timely manner.[56,57]

Another historic driver of network costs is the Supplier of Last Resort (SoLR) mechanism, introduced following the collapse of the UK supplier market in 2021/22. This collapse was a significant regulatory failure: Ofgem's promotion of competition encouraged the entry of dozens of poorly capitalised suppliers with inadequate hedging strategies, and then when wholesale prices spiked, 29 suppliers failed.

Unlike in corporate bankruptcies where creditors take the loss, the SoLR mechanism allowed the surviving suppliers who took on stranded customers to claim their incurred costs back from the industry levy. These costs were then socialised onto all consumer bills via the standing charge and specifically recouped through the network cost allowance. The collapse of Bulb Energy alone, handled via a Special Administration Regime (SAR), cost 3 billion.[58]

Operating Costs

Operating costs include payments towards core supplier operating costs (e.g. administrative costs of social and environmental obligations, billing and payments, metering), consumer debt-related costs and industry costs. Operating costs have risen by £30 in real terms over the last decade, from £112 in 2015/16 to £142 in 2025/26. This cost is largely linked to the rise in consumer debt. Since 2021, debt-related costs have doubled and now add £29 under the April-June price cap. See Box 4 for more insight into growing levels of consumer energy debt.

Box 4: Consumer energy debt

Levels of UK consumer energy debt are at their highest since records began in 2012 and have now reached £5.5 bn, the majority of which is arrears,[59] with over 1.3m households in arrears without a repayment arrangement.[60] Consumer debt and arrears are not included in UK fuel poverty measures such as the Low Income Low Energy Efficiency (LILEE) measure.

Around one third of debt is written off and recovery socialised through the 'debt-related costs allowance' built into everyone's gas and electricity bills.[61] Under the price cap, typical dual fuel customers paying by Direct Debit pay an extra £50 a year, which Energy UK[62] estimate could rise by a further £10-£15/yr by end 2026. Customers settling their bill on receipt (Standard Credit) pay much more - around £143/yr[63] and are already more likely to fall into arrears and debt. As 'debt-related costs allowance' is partly applied to unit rate high consumption, households relying on direct electric heating will pay even more – these are already more likely to be fuel poor.

A Debt Relief Scheme is being implemented in 2026 by Ofgem[64] that aims to write off up to £500m but this leaves most arrears unaffected and is still funded through energy bills so is regressive.

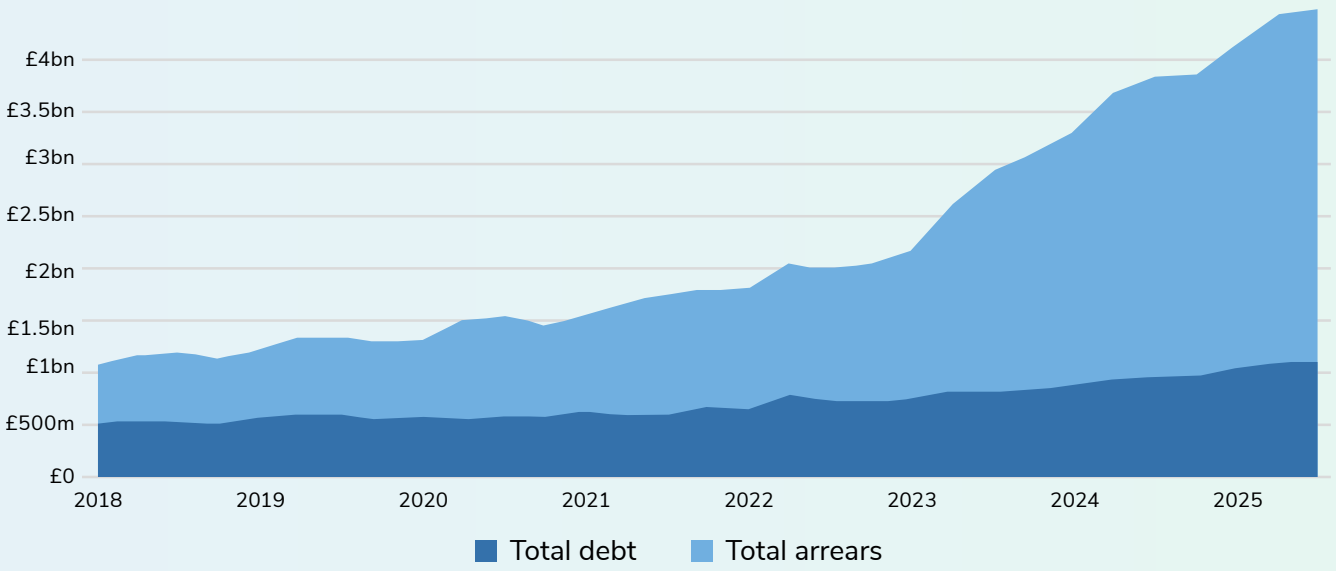


Figure 2: Total domestic customer energy debt and arrears, January 2018 to July 2025.[65]

Iran War – Expected Impacts on Bills

The recent outbreak of war in the Persian Gulf means that longer-term trends and recent Government actions, such as moving certain policy costs off bills, will almost certainly be overwhelmed, in the short term at least, by rises in wholesale costs. This situation is constantly evolving, but we consider below the effects of the war and UK Government action taken as a direct response to the crisis.

Iran War Impacts

Dependence on fossil fuel brings vulnerability to geopolitical disruption that affects either production or global shipping. While most natural gas is moved via pipelines, most oil and LNG are transported by sea.[66] The Strait of Hormuz is a key chokepoint[67] that transports about 20% of global liquefied natural gas (LNG), over 80% of which goes to Asian markets[68]. If the strait is blocked for a prolonged period, or production infrastructure is damaged, then global fossil fuel price shocks may turn into supply shortages and a wider systemic crisis.

Some impacts on energy consumers have already been felt. In the electricity retail market, some suppliers withdrew or raised fixed rate deals.[32] There have also already been substantial rises in the price of petrol and diesel,[33] heating oil[34] and LPG. Rising transport costs will add to cost-of-living pressures and will also push up the price of a wide range of goods including fertiliser and food.[69] The recently-announced price cap for July-September increased to £1,862 for a dual fuel household paying by Direct Debit – a typical £221 per year price increase (13%) compared to April 2026.[4] Ofgem also published another figure for the July-September period, £1,663 per year, which uses lower Typical Domestic Consumption Values (TDCVs) to reflect falling average household energy usage. Beyond this, the price cap for October-December is forecast to stabilise at around £1,899 (£1,709 using the new TDCVs).[70]

With uncertainty over how long the Strait of Hormuz will be restricted, various scenarios have been modelled.[71] Analysis for the European Commission's Spring 2026 Economic Forecast[72] includes a scenario of a prolonged

disruption to energy markets caused by the Middle East crisis, resulting in a slowdown in growth and EU inflation rising to 3.5% in 2027, driven almost entirely by higher oil and gas prices. Bottlenecks in global energy supply chains cascade through chemical production into agriculture, amplifying costs far beyond what standard trade models predict and with the burden falling unevenly.[73]

UK Capacity to Respond

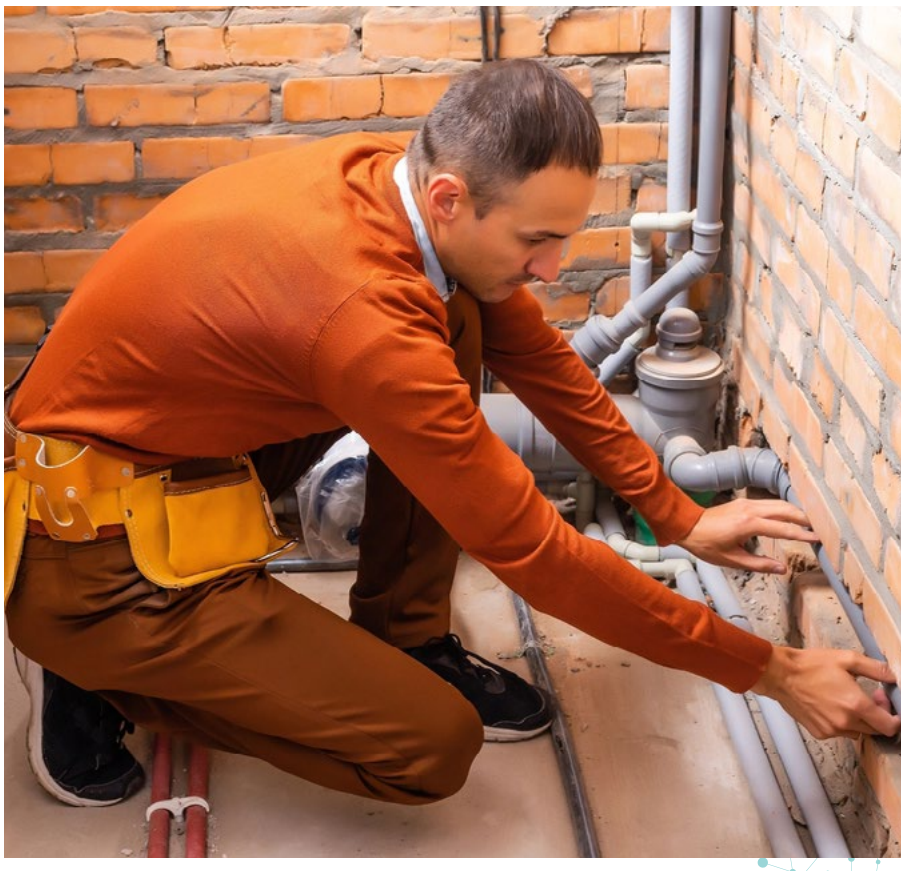
Previous spending during the COVID pandemic and Ukraine energy crisis have left the UK with high levels of Government debt. The UK's fiscal support during both the pandemic and the last energy crisis was among the largest across advanced economies.[74] The Covid-19 pandemic costs totalled £310-£410 billion. The Government's energy bills support schemes in 2022-2023 cost an estimated £44 billion.[75] OECD forecasts of inflation, cost of borrowing, and economic growth for the UK suggest that the UK will face economic challenges for some years to come.[76] This will affect the Government's capacity to protect consumers at a time when it has been attempting to stop the debt-to-GDP ratio from continuing to rise.[77]

How Has Government Decided to Act?

Given these financial constraints, the Government has, unsurprisingly, indicated that financial support for rising bills will be targeted towards the most fuel poor and vulnerable.[78] However, limitations in data and methods for identifying fuel poor and vulnerable households[79,80,81] may restrict this targeted approach. So far, the UK and Scottish governments have offered targeted bill support to homes using heating oil and LPG[82,83] and increased the Boiler Upgrade Scheme (BUS) grant to £9,000 for homes in England and Wales replacing oil or LPG boilers with heat pumps.

In April 2026, the Government announced two complementary measures to help de-link electricity and gas prices and better protect the UK against future price spikes. The wholesale market CfD proposes to improve price stability for consumers by reducing exposure to volatile gas-linked prices, as well as provide more revenue certainty for generators. The option to move to a fixed-price contract could also help allow existing projects facing financial uncertainty (e.g. those set to lose their RO support) to remain in operation for longer.

The second measure announced in April is raising the Energy Generator Levy (EGL) rate to 55% and extending it beyond the initial 2028 completion date, due to take effect from 1 July 2026. A higher rate is intended to provide an incentive for the wholesale price CfD by creating a higher revenue tax for projects currently without a CfD. It will also direct a proportion of excessive/exceptional revenues as a result of high gas prices to government, which can theoretically funnel this back into supporting vulnerable households.



4. Expected Future Drivers of Bills

Drawing on estimates and trends from a range of grey literature sources, as well as insights from a UKERC expert workshop on bills held in November 2025,[84] This section summarises below how key bill components are expected to change by 2030, as well as key announced policy developments.

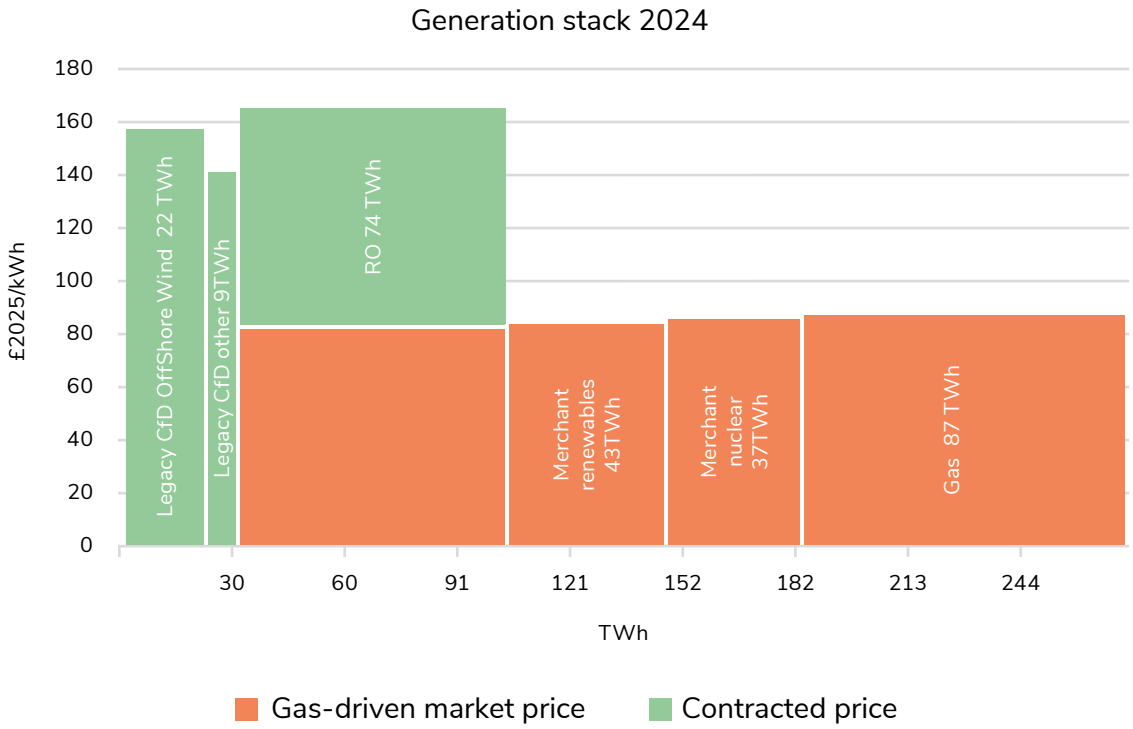
Wholesale Costs

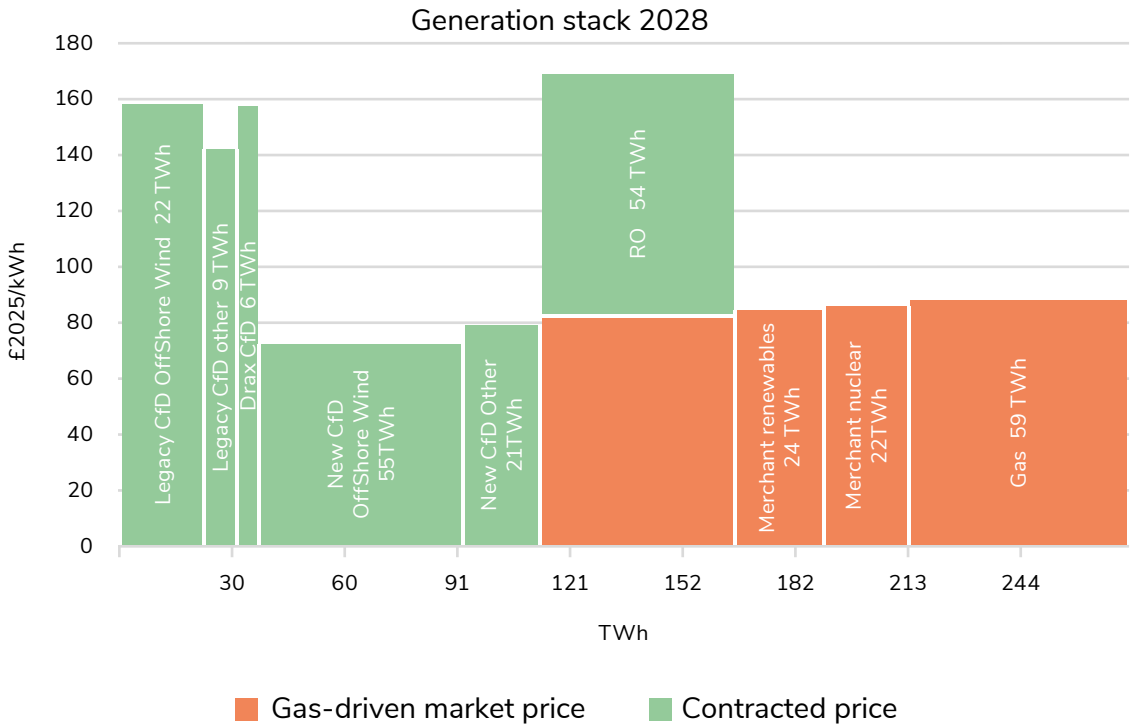
Wholesale costs include the wholesale costs of fuel, the CfDs for fixed-price renewable generation and the Capacity Market.

Previous work within UKERC's mission on bills,[37] highlighted that looking to the late 2020s, the pressure from high gas prices on consumer bills was likely to ease as a higher percentage of renewables on fixed price contracts would start to reduce dependency on gas.

Analysis from November 2025 showed that as more CfD-backed renewables come online, the volume of generation receiving gas-linked market prices would drop from 90% in 2024 to 60% in 2028. It was estimated that if gas prices remained constant, these structural changes would reduce average prices by about £7/MWh, saving £20/year for the average consumer. Current wholesale gas prices in GB are trading around 10%[85] higher than 2025 average prices. If these more recent prices persist, future savings will be correspondingly higher.

Figures 3a and 3b illustrate how gas prices fed through into overall electricity pricing in 2024 and how this is expected to change by 2028.





Figures 3a and 3b – Showing the generation price stack in 2024 and forecast in 2028

Generators that sell their output on the basis of gas-driven market prices are indicated by the orange bars, whilst generators with fixed price contracts or other types of fixed revenues are shown in green. Some plant receives a mixture of both. In 2024 (Figure 3a), gas-driven market prices drove revenues for close to 90% of generation (indicated by the width of the orange bars on the x-axis) and represented around two-thirds of total cost (indicated by the area of orange bars). By 2028 (Figure 3b), gas-driven market prices will drive revenues for around 60% of plant on the system and will be responsible for just under half of the total cost (indicated by the width and area of the orange bars, respectively).

The changes between now and 2028 for each of the main categories are as follows:

- **Legacy CfD generators** (stays at 31TWh). Older CfD contracts have high average strike prices of £140-160/MWh in today's prices, due to the high price for the early rounds of the CfD, which were set by government rather than through CfD auctions. The total cost (shown by the area of these bars) is about 15% of the total for the system as a whole.

- **New CfD contracts** (increases to 76 TWh). This includes successful bids for CfD contracts in auction rounds 1-6 that are not already included in the legacy category, which can be expected to be active by 2028.

- **Renewables Obligation** (decreases from 74 TWh to 54 TWh). These generators receive the market price of around £85/MWh (orange bar), as well as revenues from the sale of renewable certificates (green bar), worth around £80/MWh on average. Around half of the reduction to 2028 is due to the 20-year RO contracts expiring over time. The other half is due to Drax coming out of the RO scheme. Roughly half of Drax's output will be covered by a fixed price CfD, the rest will operate as merchant.

- **Merchant renewables** (decreases from 43 TWh to 24 TWh). This component is expected to reduce as wind plant, currently operating under merchant, reach their contract start dates and start operating under fixed price CfDs. This is partially offset as approximately half of Drax output will start operating as merchant, adding to current hydro and biomass plants that operate as merchant plants.

- **Merchant nuclear** (decreases from 37 TWh to 11 TWh). This reflects the retirement of Hartlepool and Heysham 1 power stations.

- **Gas generation** (decreases from 87 TWh to 70 TWh). Flexing generation will move downwards as the share of renewables increases.

Relative to 2025 gas prices, these structural changes reduce average prices by about £7/MWh, saving £20/year for the average consumer by 2028 – with higher savings if recent price rises persist. The changes also make electricity prices less sensitive to gas price variation. The shift towards a fixed price cost structure means that by 2028, only around 45% of the costs are driven by market prices, compared to 65% in 2024. This should substantially reduce consumers' exposure to price rises if the ongoing gas price crisis persists or new crises emerge.

Contracts for Difference

The Contracts for Difference (CfD) component of consumer energy bills will grow as more CfD-backed generation from Allocation Rounds 4, 5,[xi] 6 and 7 are connected to the grid. In January 2026, for example, Allocation Round 7 (AR7) saw a record 8.4GW of offshore wind capacity awarded contracts, a critical step toward meeting national decarbonisation targets, with the majority expected to be connected to the grid by 2030/31.

Summary of CfD-backed offshore wind capacity due to come online between 2026–2030:

- AR 4 secured 5.5[xii] GW of offshore wind generation at a strike price of £52.05/MWh (2024 prices) with projects due to come online 2026/27
- AR 6 secured 2.5[xiii] GW of offshore wind generation at a strike price of £75.57 – 82.03/MWh (2024 prices) with projects due to come online 2027–29
- AR 7 secured 8.4 GW of offshore wind generation at a strike price of £91/MWh (2024 prices) with projects due to come online 2029–31

Separate studies conducted shortly ahead of AR7[86,87] found that a strike price of around £94/MWh would be strictly cost-neutral for consumers, with lower strike prices leading to lower customer bills. Successful AR7 bids cleared comfortably under this mark, securing a strike price of £91.20/MWh, with lower rates of £89.49/MWh in Scotland (both in 2024 prices) due to more favourable wind yields. In light of recent gas price spikes, this outcome has already shown itself to be cost-saving rather than cost-neutral.

CfD levies may noticeably increase after the 2030s, driven by the Hinkley Point C nuclear facility coming online. Expected to provide roughly 7% of the UK's baseload energy, its inflation-linked strike price means this electricity will be generated at a cost of approximately £130/MWh.

Network Costs

Network costs, including transmission, distribution and balancing costs, are expected to see high cost increases up to 2030, driven by the need to build out to connect new sources of generation and demand as well as the need to refresh and replace ageing network assets.

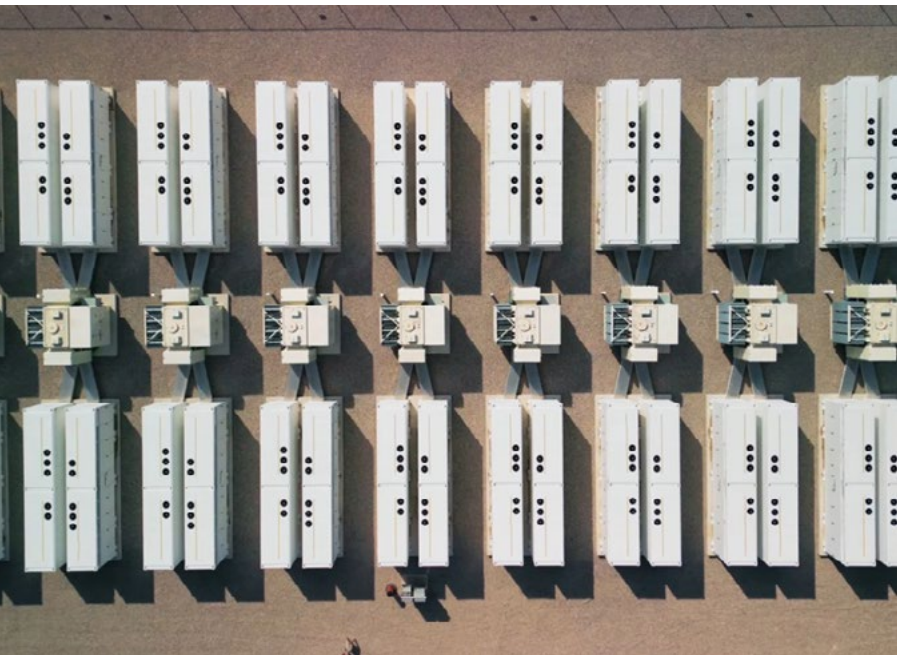
Transmission

Both Ofgem's forthcoming RIIO-3 determinations and forecasts from the National Energy System Operator (NESO) point to Transmission Network Use of System (TNUoS) charges growing significantly. The RIIO-3 framework (2026–2031), for instance, introduces new revenue allowances to fund sweeping grid reinforcement investments to alleviate historical bottlenecks and accommodate the rapid expansion of renewable generation situated in remote locations.[88]

xi To note, no offshore wind capacity was secured in AR 5.

xii This was originally 6.9 GW before Norfolk Boreas was dropped.

xiii This originally 4.9 GW before Hornsea Four was dropped.



Ofgem have announced a £104 increase in network charges for electricity transmission, gas distribution and gas transmission over the RIIO 3 period.[88] Out of this, £52 will be for renewing and upgrading the electricity transmission grids, and the remaining £52 reflects BAU costs for maintaining a resilient gas grid.

In total, this £104 investment should produce £80 of savings for consumers from lower gas use (£25) and lower constraint costs (around £55) by 2031. Ofgem note that if they did not approve the investment in the electricity grids, network charges would be lower by around £52 by 2031, but overall energy bills would be higher by £30 due to increased gas use and higher system balancing costs. This includes higher constraint costs – the payments currently made to curtail remote wind generation when the existing grid lacks the capacity to transport their output to major demand centres.[88]

While costs are therefore set to rise in the short to medium term, this must not be divorced from the long-term economic picture. Expanding the transmission network is a fundamental prerequisite for physically connecting greater volumes of cheap renewable generation to the national grid. Financial benefits will materialise through a permanent reduction in reliance on volatile gas markets, alongside significantly reduced constraint costs.

Distribution

Distribution-related costs, specifically Distribution Use of System (DUoS) charges, are also set to experience a noticeable increase in the coming years.[89] This is driven by significantly rising predicted overall electricity demand due to electrification of heat and transport, more distributed energy resources at the domestic and community level, and increasing requirements for local grid resilience against extreme weather events. Ofgem is currently developing its proposed RIIO-ED3 framework, which will govern the upcoming 2028-2033 price control period. This framework will introduce a much stronger regulatory vision designed to incentivise Distribution Network Operators (DNOs) to invest with a view to securing future grid stability and long-term resilience. While these anticipatory investments are highly likely to drive up DUoS costs for bill-payers in the short term, regulators argue this capital expenditure is essential to ensure that consumer interests, both in terms of energy security and overall system costs, are adequately protected in the longer term.

Balancing

Balancing charges (BSUoS) have increased over the last three years, reflecting an increase in constraint and curtailment costs, as transmission network build and capacity have not kept pace with the number of offshore wind farms being built. Constraint costs are likely to continue growing in the short-term – NESO point to up to £8 billion in yearly expenditure by 2030 compared to £2 billion in 2025[90] – but should start to shrink after 2030 as a result of the increased transmission network build-out. This should save consumer bills £55 in reduced constraint costs.[88]

Box 5: Standing Charges

In the UK, fixed charges are applied equally across all households who pay the same daily rate. This has risen very substantially in past years and is expected to continue rising to fund large investments in the energy network.

Ofgem's Targeted Charging Review shifted a large portion of network costs from unit rates to fixed standing charges. Under the Q2 2026 price cap, the standing charge rose to 24% of a total electricity bill for a 'typical' household.[43] The largest network charge component on bills is DUoS, approximately half of which is recovered via the standing charge (the 'residual' element) and half via unit rate (the 'forward-looking' element). In February 2026, UK Government announced that from April the costs of the Warm Home Discount (WHD) would be moved from the standing charge component onto the unit rate for electricity and gas.[91] For electricity bills, this affects around £20/yr and makes the system more progressive for low-use households while avoiding the immediate cost to the Treasury of moving it into general taxation.

In the UK, a one-bedroom studio pays the same standing charge as a six-bedroom home, meaning the standing charge is disproportionately borne by small, low energy usage households, many of which are low-income.[92] France has a very different approach to fixed charges, which is based on 'contracted' power: standing charges are linked to a household's expected required power capacity.

Standing charges are unpopular with UK bill-payers[93] but allowing opt-out of standing charges could unfairly shift the burden of fixed costs onto those less able to shift their electricity consumption. Ofgem are trialling no/low Standing Charge tariffs[94] and undertaking a wider review of options for how energy system costs are allocated and recovered from consumers.[95]

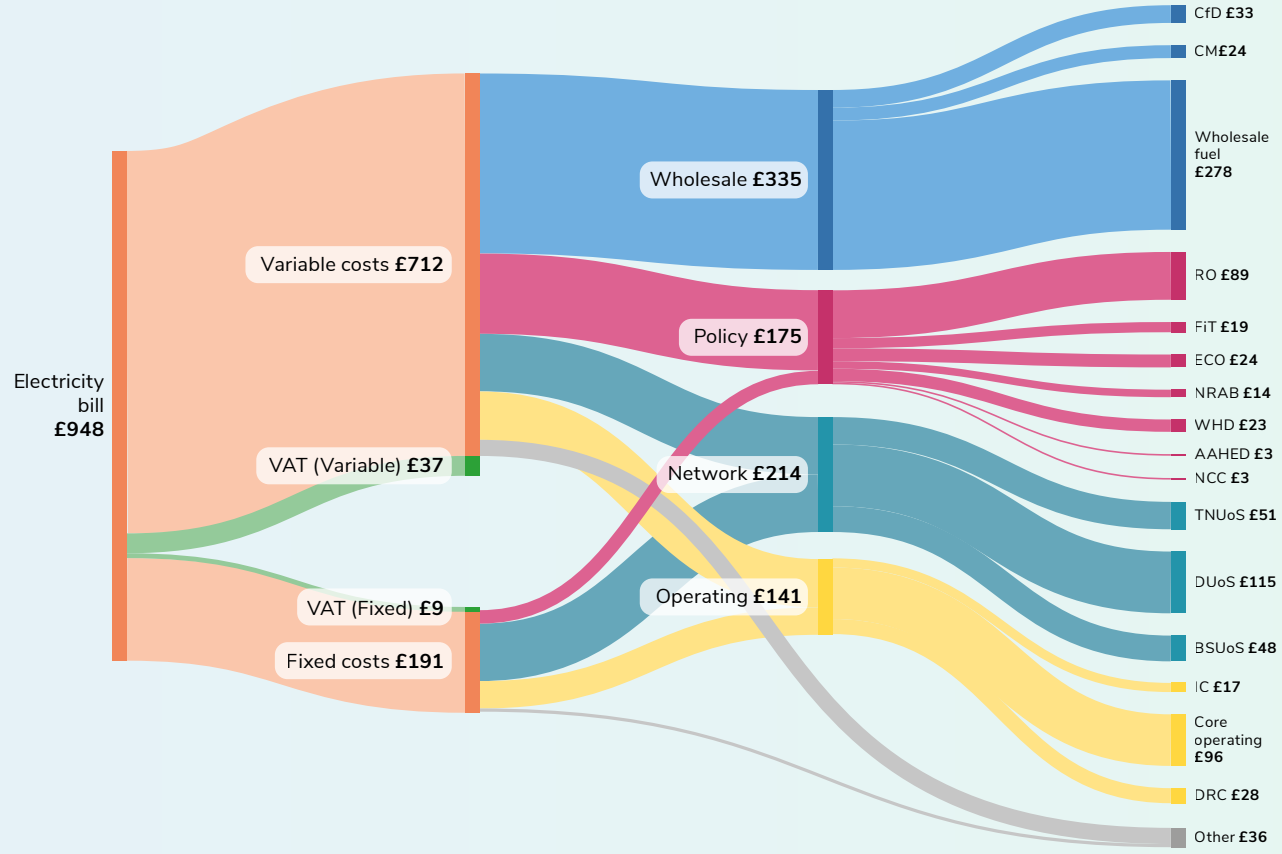


Figure 4: Unit rate and standing charge components on UK household electricity bills (based on January-March 2026 Price Cap)

(For explanation of abbreviations used, see page 4)

Policy Costs

Policy costs have significantly decreased in 2026 and are not projected to meaningfully rise again before 2030.

Looking at the remaining policy components, the overall trajectory continues to point downward, though with some notable exceptions. The Feed-in-Tariff (FiT) scheme, which subsidised the initial boom in domestic rooftop solar and small-scale renewables, will start tapering off by 2027 as the earliest 20-year contracts reach the end of their lifespan, gradually removing another legacy levy from consumer bills. On the flip side, however, the recently implemented Nuclear Regulated Asset Base (RAB) model will continue to add approximately £17 to consumer bills per year.

Operating Costs

Operating costs are not anticipated to rise significantly by 2030. Where there is an increase, this is likely to reflect growing consumer energy debt, which is at its highest since records began in 2012 and has now reached £5.5 bn (see Box 4).

Bill component	Expected changes between 2026 and 2030
Wholesale fuel	• Increasing capacity from cheaper, fixed price renewables is expected to lower wholesale costs. UKERC analysis estimated that the volume of generation receiving gas-linked market prices would drop from 90% in 2024 to 60% in 2028 – saving consumers £20/household/yr if gas returns to 2025 prices, but with higher savings if recent price rises persist. • Geopolitical instability and the destruction of critical LNG infrastructure in the Middle East have caused global gas price shocks which could continue to inflate wholesale fuel costs in the short- and medium-term.
Contracts for Difference	• The CfD component of bills will grow as projects from AR 4, 5, 6 and 7 are connected to the grid over the 2026–2030/31 period. • Strike prices range from £52.05/MWh[xiv] for 5.5 GW of offshore wind projects in AR4[96] to £91.20/MWh for 8.4 GW of offshore wind projects in AR7.[97] • Studies found that a strike price of around £94/MWh in AR7 would be cost neutral for consumers. Since successful bids came in at a strike price of £91.20/MWh, this is cost-saving – especially relative to current high gas prices.
Transmission (TNUoS)	• Network charges for electricity transmission, gas distribution and gas transmission will increase by £104 over the RIIO 3 period (2026–2031). Out of this, £52 will be for renewing and upgrading the electricity transmission grids, and the remaining £52 reflects BAU costs for maintaining a resilient gas grid. • This investment should produce £80/yr of savings for consumers from lower gas use (£25) and lower constraint costs (around £55) by 2031.
Distribution (DUoS)	• Distribution-related costs are expected to rise as local grids require significant reinforcement to manage increasing demand, more distributed energy resources, and stricter climate-resilience standards. • A large proportion of distribution network assets are also reaching or have exceeded their nominal design lifetimes and need to be replaced – costs would need to increase under any system design.
Balancing (BSUoS)	• Balancing charges are predicted to grow in the short-term due to higher constraint costs – NESO point to up to £8 billion in yearly expenditure by 2030 compared to £2 billion in 2025.[90] These should start to shrink after 2030 as a result of increased transmission network build-out.
Policy	• Policy costs are not expected to rise meaningfully by 2030, as the scheduled tapering of Feed-in-Tariffs starting in 2027 will help offset the steady £17 annual increase from the newly introduced Nuclear RAB.
Operating	• Operating costs are not anticipated to rise significantly by 2030. Where there is an increase, this is likely to reflect growing consumer energy debt, which is at its highest since records began in 2012 and has now reached £5.5 bn (see Box 4).

Table 2: Summary of Expected Future Changes to GB Electricity Prices

xiv In 2024 prices.

5. Designing Reforms to Reduce UK Electricity Bills

A diverse range of policy reforms to reduce electricity bills has been proposed.[98,99,100] This section makes observations about the challenges, opportunities and trade-offs involved in designing a package of reforms to reduce domestic electricity bills in the UK and some reflections on reforms that make sense in the UK context.

Challenges and Opportunities

While consumer bills are now a pressing and paramount concern, the UK government will also need to consider, in parallel, multiple goals within the transition to an affordable, clean, fair and 'secure' energy system. Consensus is lacking on the definition of 'energy security', but its multi-dimensional nature is widely acknowledged. Most typically, 'energy security' involves making energy *available*, *accessible*, *affordable*, and *acceptable* to consumers, but four additional aspects are also found in the literature and key UK Government strategy documents: *Sustainability*, *Independence*,[xv] *Governance* (reforms to Ofgem's role would be an example), and *Data & Metrics* (data limitations for implementing targeted bill support is one illustration).[101]

Government strategy for the pathway to net zero also includes some more specific goals and targets that must also be addressed or managed. These include the electrification of heating and transport and an ambitious increase in consumer-led flexibility. Electrification is made more challenging by the high spark gap – a unit of electricity is more than four times the cost of a unit of gas[54] (see Box 3, Section 3). As identified in the discussion of future costs in Section 4, to deliver decarbonisation and electrification, the UK will need to make up for past under-investment in the grid to reduce curtailment of cheap wind and high constraint payments. The Clean Power goal must also address the connection queue bottleneck, so is shifting from a "first-come, first-served" model to a "First Ready and needed, First Connected"[102] approach. Two further headwinds are the high levels of Government and consumer debt and supply chain issues. Rising prices due to the war in Iran has recently added additional urgency to the challenge of designing, implementing and communicating bill reforms to reduce energy bills.

xv For example, *Powering Up Britain: Energy Security Plan* ("We want our energy to be cheap, clean and British"; "energy independence") and the *British Energy Security Strategy* ("Secure, clean and affordable British energy"; "reducing our dependence" on imported oil and gas and hydrogen; and "a power supply that's made in Britain, for Britain"). The UK 'Plan for Change' includes a mission and milestones for "Securing home-grown energy".

Crisis as Opportunity and Catalyst

During crises, political will and focus are greater than usual. There may also be a rapid shift or expansion in the range of policies or ideas acceptable to, or preferred by, the public - often called the Overton window of discourse or political possibility (see Fig. 5).[103] This was seen in the Government response to Covid-19 pandemic.[104]

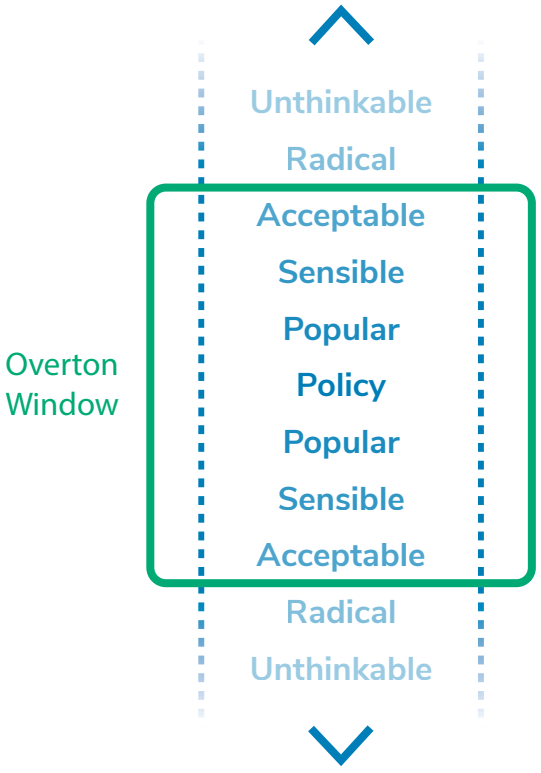


Figure 5: Illustration of the Overton Window

(Source: after Overton, Lehman and Treviño)

This crisis has increased the arguments and pressure to reduce our reliance on fossil fuel imports by overturning the UK 'ban' on oil and gas extraction in the North Sea. It is also reinforcing arguments in favour of doubling down on support for renewable energy and electrification, and commitments to transition from fossil fuels.[xvi]

In March 2026, the UK Government declared its intent to "*learn the right long-term lessons*" from the Iran crisis by speeding up the transition to homegrown renewables, retaining windfall taxes on oil and gas companies and refusing new North Sea exploration licenses.[10] In the same month the Government announced it will go "*further and faster*" in the pursuit of national energy security as a response to events in the Middle East, including making low-cost 'plug-in solar' available in the UK for the first time.[105]

Analysis from the Committee on Climate Change and others shows that accelerating the move to clean power would reduce the UK's exposure to the massive costs associated with fossil fuel shocks beyond our control. The Climate Change Committee recently noted that "*When considering costs to households, businesses and the Exchequer, the total additional cost of a single fossil fuel shock of 2022 magnitude is likely to be as large as the total net additional cost of meeting the Balanced Pathway across every year to 2050*".[106] This is supported by analysis that concludes that the total direct cost to the UK economy from the energy crisis 2021-23 is £183bn.[107]

Some broader signs are emerging that the conflict in the Gulf is acting as a catalyst to move away from fossil fuels. As focus shifts from climate change to geopolitical crisis, renewables funds in May attracted the biggest monthly investments since 2021.[108] UK suppliers have also reported a surge in enquiries about solar rooftop PV,[109,110] heat pumps[111] and electric vehicles[112] since the conflict in the Middle East began. Given installation lead times, and already strong growth in sales,[113] it is too early to interpret figures for sales and installations. Reducing the influence of gas on electricity prices – which Government has announced action on[8] – and reducing the high spark gap, could reduce barriers to stronger consumer engagement.

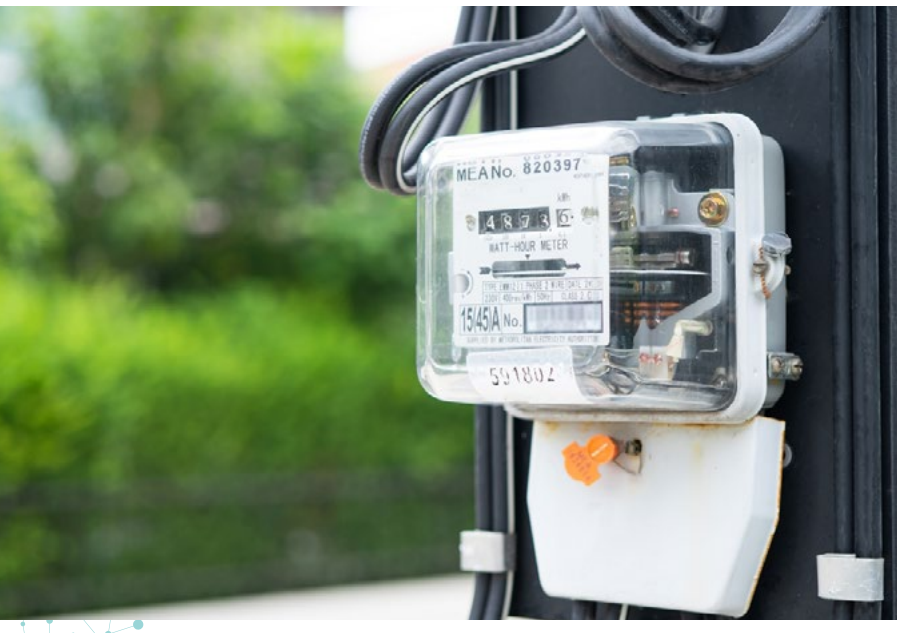
xvi The local election results in May 2026 may also increase appetites for bolder policy.

Assessing Reforms: Criteria and Trade-offs

When designing reforms, it is important to identify some guiding principles and make explicit the criteria used for assessing and comparing candidate reforms. This can help to collate evidence, compare proposed reforms, and make policy decision-making and trade-offs more transparent.

In the context of the Ukraine energy crisis, a 2022 IMF report[114] gives several recommendations for designing measures to cushion the impact of higher energy prices. These include two principles already noted above: that support measures should balance several objectives; and that accelerating the green transition is the best way to limit vulnerability to spikes in fossil fuel prices and enhance energy security. The work also suggests:

- Targeting support to help contain fiscal costs
- Providing vulnerable households with income support without distorting the marginal price they pay for energy
- Avoiding measures that mute the price signal
- Taxing windfall profits of energy producers can be an option, but careful design is key to avoid unintended consequences.



More broadly, designing reforms can also learn from international experience and from other sectors (such as telecoms, where change in offerings, tariff structures and regulation brought cheaper, tailored packages to people).[115]

In their review of the policy options to reduce electricity bills in Great Britain, Brown and Lockwood[116] evaluated a wide range of reforms against four criteria:

- Impact on electricity bills
- Implications for carbon emissions
- Cost to government, and
- Feasibility or complexity of implementation.

This work also groups recommended reforms into three escalating 'solution sets': *Quick-Wins*, *Market Reform*, and a more ambitious *Market Revolution* package.

A more granular assessment framework might encompass broader criteria, such as:

- Distributional impacts;
- Time to implement the reform;
- Wider impacts on the economy and growth, including inflation and business energy costs; and
- Compatibility with net zero goals of electrification and CLF.

A holistic set of assessment criteria could be the basis for multi-criteria decision analysis (MCDA). The Green Book,[117] and supplementary guidance[118] for options appraisal, recommend MCDA as a robust method for ranking choices. It incorporates 'swing weighting', a technique designed specifically to help decision-makers perform explicit trade-offs between competing criteria. Some of these trade-offs are discussed below.

Trade-offs

However well-defined the criteria used and the assessments against them, designing a package of interventions and reforms to reduce bills will involve making a number of trade-offs. Some win-wins and synergies between the multiple goals outlined so far in this section may be possible. Some of the trade-offs are highlighted below.

With the added pressure on bills from the Iran war, an obvious trade-off is balancing the goals, costs and benefits between the short term versus the longer-term.[xvii] As seen above, planning and acting for the longer-term could avoid huge costs from fossil fuel price shocks.

Investment vs over-investment. Investment is needed in both generation, to satisfy rising demand, and in transmission networks, to make up for past under-investment in the grid and help reduce curtailment costs. The Climate Change Committee projects that UK electricity consumption will double between 2025 and 2040.[119] At the same time, investment should be balanced with avoiding over-investment. If actual future demand falls short of projections, investment costs could fall more heavily on bills. This risk of a mismatch might be approached by either reining in investment, or by better supporting demand growth through electrification. Reducing retail electricity prices may also involve a trade-off against revenues to attract investment. For example, proposals of zonal pricing would likely lower prices but discourage investors.

Another distinction in evaluating reforms is whether reforms *reduce* overall system/consumer costs or *redistribute* costs among actors and stakeholders. Where *redistribution* does occur, it may be useful to distinguish between four broad types of redistribution[xviii] that could involve trade-offs: redistribution between different groups of consumers; between generators; between consumers and financial investors; and from consumers to government or taxpayers. These are ultimately social and political choices, rather than purely technical ones.

How system costs are spread, both over time and across stakeholders, will become increasingly important in view of the large, anticipated investments in generation and network infrastructure. The past approach of adding the cost of social policies and energy schemes onto electricity bills has been characterised as "*a shadow tax and benefit system that is hidden within energy bills*".[120] Ofgem are undertaking a review of options for how energy system costs are allocated and recovered.[95] When we achieve net zero, we can expect a more secure energy system with more stable prices,[121] but during the transition there will be periods when costs and benefits (both financial and non-financial) may not be fairly distributed.[122] Decisions need to be made now, however, about how to the costs of the transition are spread – both over time and between consumers. Recouping investment costs quickly would mean they fall more heavily on consumers now and less heavily on those of the future when power consumption is higher.

xvii There is a potential parallel trade-off between short-term and long-term costs at the level of household decision-making, i.e. between minimising costs now vs lower running costs over time if they make investments in building fabric and technologies.

xviii With thanks to expert workshop participants.

Another insight heard in our expert workshop, held in November 2025, was that reforms of the retail market will usually involve some trade-off between *complexity*, *cost reflectivity* and perceptions of *fairness*. For example, creating a national price reduces cost reflectivity but may be seen as fairer and simpler. Similarly, stronger price signals to reward consumer-led flexibility would increase cost-reflectivity but may be seen as less fair if fixed costs-to-supply were to fall more heavily on those unable to engage in flexibility. There is an important trade-off to be worked out between rewarding consumer-led flexibility (CLF) and how rising fixed system costs, and the system savings from CLF, are shared across all consumers in a fair way.

The distribution of costs, and perceptions of its fairness, has clear potential to impact public acceptability and support for net zero, but what is considered fair may differ across different consumers, or publics. Perceived fairness is one of the strongest predictors of policy support but treating people equally may conflict with other principles of fairness[123,124] such as protecting more vulnerable households or 'leaving no one behind'. Research by Ofgem[93] has found that the majority of consumers perceive standing charges as 'unfair' – this view decreases slightly when the trade-offs of lower unit rates are explained, but there is no consensus among consumers on how best to structure costs.

This suggests that trade-offs may also be needed between competing definitions and perceptions of fairness. With relevance for the acceptance of new reforms, there is also evidence for cognitive biases towards seeing the current state as fairer and keeping things as they are (these include a 'status quo bias'[125,126] and 'loss aversion'[127]). However, these preferences can also move to align with the distributional impacts of new policy. For example, a study of attitudes of Swedish citizens before and after a tax reform shows that people's assessment of what an ideal tax rate would be moves in line with the actual tax rate,[128] suggesting that acceptance of a reform may grow after it is implemented.

6. Which Reforms?

In this section we examine the options for reducing bills based on previous sections' analyses and discussions of UK historic drivers of bills, how components are liable to change between 2026–2030, and how reforms to reduce bills might be assessed.

Accelerate Delinking Electricity From Gas Prices

As UK electricity bills are particularly exposed to gas prices, and the impacts of geopolitical crises such as the conflict in the Persian Gulf, delinking power from gas has the potential to reduce electricity bills also in the short term. It may also help unlock opportunities for faster electrification of heating and electric vehicle charging that will advance energy decarbonisation and security. While connecting more fixed-price, low carbon generation to the grid in recent years has already helped to weaken the link between electricity prices from gas (and will continue to do so as projects from previous years' auction rounds come online), more action could be taken to accelerate this process in the short-term.

To this end, in April 2026, the Government announced a 'wholesale price CfD',[8] which provides low carbon generators not on fixed-term contracts the opportunity to voluntarily pivot from wholesale market prices to CfDs. This is a welcome announcement which, if successfully implemented, should help to further decouple gas and electricity prices. However, the current proposal leaves the Renewable Obligation (RO) subsidy in place – a missed opportunity for more substantial bill reductions in the near term.

While the wholesale market CfD addresses high market prices, Government should consider going further and implementing further reforms that come closer to UKERC's more ambitious Pot Zero proposal that addresses the issue of high RO costs.[129] UKERC analysis from 2025 – before the latest crisis hit – pointed to potential savings from Pot Zero in the range of £2 to £8 billion per year.[129] The recent increase in prices adds a further £1.5 – 2.5bn per year to these savings for as long as the high prices persist.[130] Implementing this proposal could also offer additional benefits – namely reducing prices for all consumers, reducing the cost of the recent RO rebate to Treasury, going beyond the RO rebate by delivering electricity below prevailing wholesale prices, ensuring serviceable renewable power stays online for longer and helping to make power prices less volatile in future.[130] Further analysis by UKERC will explore options to strengthen the WCfD and do more to address ongoing RO payments.

Other reforms to weaken or remove the link between gas and electricity prices include the proposal to remove gas power stations from the wholesale market altogether.[131] As discussed in a recent UKERC blog on options for delinking gas and electricity prices,[132] this could involve placing gas on a Regulated Asset Base (RAB) model, and/or making gas power stations into a strategic reserve, centrally dispatched by the system operator. In a RAB approach, gas would stay in private ownership, with profits regulated. This could be implemented without removing gas from the wholesale market; RAB-only generators would do cost-plus pricing, and only bid in on the basis of marginal cost. Alternatively, the National Energy Systems Operator (NESO) could establish contracts for 'strategic reserve' and dispatch gas fired power stations when needed. The current situation where wholesale power market prices market wide are usually set by gas would therefore be eliminated.

Challenges with this approach, however, include NESO's ability to effectively oversee the utilisation of gas assets and/or act as a buyer of gas. Additionally, there are concerns about unintended distortions from interactions between the strategic reserve and wholesale market. Given these complexities and unclear requirements, this model is likely better suited as a long-term structural change rather than a near term, crisis response measure.

Reducing System Costs

Sections 3 and 4 discussed the impact of constraint and curtailment costs on bills in recent and incoming years. Strategic reform is already underway to address these growing system costs. Government is consulting on Reformed National Pricing (RNP), the portfolio of interventions which set out to reform siting and investment levers to support delivery of the Spatial Strategic Energy Plan (SSEP), reduce network constraint costs, and improve system operation and efficiency by reforming balancing and settlement arrangements. It has been suggested that RNP proposals could lower bills by £40/household and £13/MWh by 2030.[133] A UKERC and UCL Centre for Net Zero Market Design (CNZMD) workshop exploring locational signals under RNP considered reforms that could reduce system costs.[134] Potential avenues for improving existing network capacity, for instance, included introducing more engineering/IT-based Dynamic Line Rating solutions, moving demand to new locations that alleviate network constraint via Demand-Behind-Constraint contracts and relaxing SQSS standards. From the perspective of improving operational efficiency of the Balancing Mechanism, introducing lower thresholds for participation and introducing constraint markets – two options on the table during REMA and subsequent RNP discussion – could also help to reduce system costs.

The aim of the reforms to siting and investment levers for delivery of the SSEP is to improve the long-run efficiency of the system by coordinating and aligning generation, transmission and demand build-out. This coordination should reduce constraint costs and lead to more optimal siting decisions, ultimately leading to savings to the consumer but only in the long term. The three primary levers addressed in the consultation include controlling the supply of connection licences, locational network charges (TNUoS), and locational auctions for government's investment support schemes (e.g. the CfD auctions). Additional enabling levers include planning and seabed leasing.

Part of this more planned approach of the SSEP includes anticipatory investment in, and build-out of, the network, which will allow more clean power to connect to the grid and reduce system costs by alleviating constraint and curtailment costs. There is however a fine line between over and under-investment in the network – investment and build-out will have to match the actual anticipated growth in electricity demand, avoiding risks of locking consumers into paying for too much network build. There could be scope to review and/or reform investment and payment timescales for this anticipatory network build, to ensure that (a) what is being financed is aligned with accurate future demand projections and (b) the process of recovering costs is fairly distributed across generations, given that the network-related incoming investment 'hump' of the late 2020s will lead to material savings later down the line.

Reducing/Removing Policy Costs and Socialising Debt

With the Ofgem price cap rising by 13% for the typical household in July,[63] workable reforms delivering bill reductions quickly would be welcomed by Government and consumers alike. Reforms that could be implemented more rapidly may be found downstream from wholesale markets – in how bills are structured and taxed.

While policy costs have materially reduced since April 2026, there are opportunities to take this further. Around 10% (£90) of a typical domestic electricity bill is now due to added policy costs, with the more expensive among these including the Renewables Obligation, Feed-in-Tariffs, Warm Homes Discount and nuclear RAB. As previously discussed, Pot Zero could address the RO component, which remains one of the more substantive levies (£25). There is also broad support emerging for moving all remaining levies into general taxation.

Similarly, there have been calls to change the socialisation of debt-related costs on bills. The Ofgem headline Price Cap figure masks important distributional impacts. A customer who lives alone, relies on direct electric heating and pays their electricity on receipt of the bill ('standard credit') is hit harder by both the Standing Charges and 'Debt-Related Costs allowance' (DRC). As a Standard Credit customer, they will now pay around £143/yr[63] more in Debt-Related Costs allowance than those paying by Direct Debit but, their dependence on direct electric heating will push that up even further, since DRC allowance is partly applied to electricity unit rates. Reform to make DRC allowance more progressive could close this gap. While Ofgem is implementing the Debt Relief Scheme[64] that aims to write off up to £500m of debt, NEA have called for Treasury funding to write off a larger share of the much bigger total debt.[135] Energy UK[62] recommend a comprehensive energy debt mitigation strategy that includes improving targeted support, data sharing and communication.

Tariff Reform

Noting that growing energy costs have led to a renewed interest in social tariffs, recent UKERC analysis into rising block tariffs (RBT) – where consumers get a first 'block' of energy cheaply or for free – points to the strong drawbacks for fuel poor consumers in the lowest income quartiles[136]. Transparently-funded and well-targeted discounts or direct bill support should be prioritised instead, with RBT only on the table if supported by clear protections for fuel poor/high-need households. However, further targeted support may be hampered by a lack of data to match support to those most in need. As an alternative tariff reform, introducing a progressive tiered standing charge, based on consumption and or occupancy, could be well-received, especially as fixed charges are expected to rise in the coming years.

Growing Electrification and Consumer-led Flex

Even further downstream from wholesale markets, reforms to reduce bills meaningfully and sustainably should also consider the pace and extent of electrification, and hence overall demand for electricity. Since recovery of fixed costs (investment in generation and networks) is spread over all units of electricity sold, when demand grows these costs get are spread over a larger volume of consumption, and the unit price to all consumers falls. If investment outpaces demand, prices will rise. Driving demand growth through electrification is therefore an important dimension of overall affordability strategy.[137]

Strong consumer engagement with consumer-led flexibility (CLF) in demand would reduce bills for those able to provide flexibility and reduce whole system costs for all consumers. The Clean Power Action Plan 2050[138] points to the need for a four to five-fold increase in CLF capacity between 2023 and 2030. Both electrification and CLF warrant more support to help ensure they will materialise at the scale and pace needed to match investment costs and keep bills down. Permanently moving remaining levies on electricity bills into general taxation would help to make EVs and heat pumps (with scope for automated shifting of large loads) more affordable and also allow cheaper off-peak rates on TOU tariffs.

7. Summary and Conclusions

This review of the UK context for reforms to reduce bills draws on literature and an expert workshop to provide a background for future work on specific reforms. We have considered the historic drivers of electricity energy bills in the UK, how bill components are liable to change between 2026–2030, and how reforms might be assessed. We suggest some promising options for reducing bills in the UK context.

Half of UK households already reported being concerned about paying their energy bills before the outbreak of conflict in the Persian Gulf this year. Now, the large majority of Britons express concern about the impact of the US/Israel-Iran hostilities on the price of energy, other bills and the wider UK economy. Most of the UK public still support the push to renewable energy and net zero, but the number in favour of the 2050 timeline for net zero has weakened in recent years. Opinion polls indicate a failure to communicate the broad public support for clean power and to tell the story of the strong progress already made with clean power. One-sided coverage in some parts of the news media is likely to have contributed to this and continues to pose risks to even-handed debate of policy options. This report helps address the need for credible and objective communication of what drives energy bills up or down and the role of energy policies in this highly contested space.

Over the last decade, average annual domestic electricity bills have grown from £643 to £968 – a £325 increase in real terms. The main driver of higher bills in this period was rising wholesale fuel costs, which is the largest single component of a bill and spiked dramatically during 2022-23 following the outbreak of war in Ukraine. The wholesale cost of gas has had a large impact on electricity bills due to gas making up a significant share of UK dispatchable power and its important role as a marginal price setter. Other factors include challenges related to market trading dynamics and the addition of the Carbon Price Support levy. Network costs have also seen a significant increase due to rising balancing costs and the Supplier of Last Resort mechanism, whereby the costs of suppliers going out of business were recovered through bills. Policy costs grew incrementally over the ten-year period. The Renewables Obligation (RO) was the most significant cost, growing from £40 to £100/yr until April 2026 when a substantial reduction,[xix] announced in the 2025 Autumn Budget, came into effect and brought policy costs broadly back to 2015 levels.

The present context of war in Iran, and the associated global gas price spikes, have once again inflated wholesale costs, which will increase bills by 13% (£221/yr for a typical dual fuel Direct Debit customer)[139] for consumers on the Ofgem Price Cap during July-September.

xix Around £88/yr for a typical household.

Over the next few years, key drivers that will affect the cost of power include substantial planned investments in maintaining and expanding networks. Wholesale costs are expected to fall in the long-term as further wind capacity is added.

Recent Government action on bills includes the reduction of policy costs in the 2025 Autumn Budget and responses to the impacts of the war in the Persian Gulf. The latter include measures aimed at reducing dependency on fossil fuels (e.g. increased grant support for households to switch from LPG or oil-based heating to heat pumps and plans to enable plug-in solar and cross-pavement electric vehicle charging) and direct financial support for heating oil consumers. April also saw the announcement of plans to accelerate the process of delinking gas and electricity prices through the 'carrot' of a new voluntary Wholesale Contract for Difference (WCfD) for legacy generators and the 'stick' of an increased Electricity Generator Levy (EGL) to tax excess profits.

Going forward, reducing bills will require a package of measures. While consumer bills and cost-of-living are a pressing and paramount concern, Government will also need to consider multiple other goals within the transition to an affordable, clean, fair and secure energy system. It would be useful to make explicit the guiding principles and the set of criteria used for assessing and comparing candidate reforms – this could help support evidence gathering, policy decision-making and trusted communication.

Decisions about reforms will involve several trade-offs that are social and political choices, rather than technical ones. Distributional impacts will be affected by how fixed costs of large investments in generation and networks, and the value of consumer-led flexibility, are shared across bill-payers and spread over time. The distribution of costs, and perceptions of its fairness, has clear potential to impact public acceptability and support for net zero.

We recommend that reforms to reduce electricity bills in the UK include focussing on the following areas:

- The influence of gas on electricity prices is weakening, and will be helped by plans announced by Government, but more ambitious proposals would also need to address high Renewable Obligation costs.
- Reforms are needed to reduce rising system costs for constraint and curtailment. Government reform is underway, including consulting on Reformed National Pricing (RNP). Options include improving operational efficiency of the Balancing Mechanism, introducing lower thresholds for participation and introducing constraint markets.
- Reforms to reduce bills more rapidly are likely to be found in how bills are structured and taxed. Permanently moving into general taxation the remaining policy costs levied on electricity could reduce bills by 10%, while reform to Debt-Related Costs allowance could substantially reduce costs for households on Standard Credit. With fixed costs expected to rise further, introducing a tiered standing charge could be progressive and well-received, but, in general, targeting support may be hampered by a lack of data to match support to those most in need.

- Faster electrification has potential to spread rising fixed costs across growing demand. Consumer-led flexibility can reduce whole system costs for all consumers as well as reducing bills for those able to provide flexibility. Removing remaining levies from electricity bills would help to make EV and heat pump adoption more competitive with fossil fuels and allow stronger off-peak price signals for these large new loads.

Future Work of UKERC Mission on Bills

Future work within the UKERC Mission on Bills[1] will explore opportunities to reduce bills both 'upstream' (wholesale market and networks) and 'downstream' (consumption and the retail market). The conflict with Iran has sharpened the case for UKERC to continue examining options for a faster, more comprehensive decoupling of the price of electricity from gas in wholesale markets.

To this end, we will investigate options to strengthen the recent commitment to a wholesale market CfD, bringing it closer to the outcomes of UKERC's more ambitious 'Pot Zero' CfD proposal.

We will explore alternative options for spreading rising network investment over time and over actors, so that benefits align fairly with costs. We will also explore opportunities and approaches to reducing system costs within the Balancing Mechanism arising from curtailment and high 'scarcity rents'.

On the downstream or retail market side, a key focus will be how to accelerate engagement with electrification and consumer-led flexibility to bring down all bills on a sustainable, durable basis. Innovative approaches to targeted support for vulnerable groups is another area that would benefit from future analysis, building on ongoing UKERC research in this area.

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