Energy UK: The cost of energy

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About Energy UK

Energy UK is the main trade association for the energy industry with members including established FTSE 100 companies right through to new, growing suppliers, generators and service providers across energy, transport, heat and technology.

Our members deliver nearly 80% of the UK's power generation and more than 95% of the energy supply for 28m UK homes as well as businesses.

The sector invests £13bn annually and delivers nearly £30bn in gross value – on top of the nearly £100bn in economic activity through its supply chain and interaction with other sectors. The energy industry is key to delivering growth and plans to invest £100bn over the course of this decade in new energy sources.

The energy sector supports 700,000 jobs in every corner of the country. Energy UK plays a key role in ensuring we attract and retain a diverse workforce. In addition to our Young Energy Professionals Forum, we are a founding member of TIDE, an industry-wide taskforce to tackle Inclusion and Diversity across energy.

Are the costs and benefits of the energy system properly reflected in consumer bills?

Energy bills in the UK are too high, placing a significant strain on households, hindering economic growth, and lowering living standards. Around 40% of households struggle to pay their energy bills, and energy debt has reached a record high of approximately £4 billion. Given these pressures, it is understandable that many consumers feel they are not seeing the benefits of the clean energy transition, especially in the face of rising energy prices.

Delivering Clean Power 2030 and wider energy security will lead to lower energy bills by reducing our dependence on international gas, thereby protecting us from volatile gas prices. While these benefits will take time to materialize, the long-term transformation of energy pricing will bring greater stability.

Beyond consumer bills, the transition to a clean energy system offers wide-ranging economic and social benefits. It will help close regional disparities, foster new industries, and create high-wage jobs. The Net Zero economy is already growing three times faster than the overall UK economy (CBI), cutting emissions while enhancing energy security and economic resilience. Investing in cleaner domestic energy production can lower costs for households and businesses, improve public health, and deliver a significant economic boost.

That said, we must also be realistic about the costs. While new industries and job opportunities will emerge, the transition requires significant investment, an estimated £1.4 trillion by 2050, with around 70% expected to come from the private sector (OBR). It is crucial to have open discussions about how these costs will be distributed

to ensure a fair and sustainable path to Net Zero. It is also critical that these conversations include considerations of the costs of inaction.

When facing such an affordability crisis, the Government should be considering what steps they can take to offer immediate relief to household struggling today. There are difficult choices to be made, but political leadership is necessary, if we are to achieve significant bill reductions.

How should consumer bills be insulated from inflated prices due to shocks to the global supply of gas? What needs to change?

April brought the third consecutive rise in the UK's energy price cap, pushing bills up by around 18% since September 2024. This latest increase, like those before it, is almost entirely the result of higher gas prices – highlighting the UK's ongoing vulnerability to volatile global energy markets.

Over recent years, this dependency on international gas prices has led to significant swings in household energy costs. The energy crisis sparked by Russia's invasion of Ukraine caused typical annual bills to almost double. Without Government intervention, they would have soared past £4,000. According to the International Monetary Fund, UK households were harder hit by energy price shocks than those in any other Western European country. In response, the UK Government had to spend nearly £100 billion to support homes and businesses during the crisis.

This cycle of volatility is a direct consequence of the UK's reliance on imported fossil fuels. The long-term solution is clear: build more clean, homegrown energy. The Government's Clean Power Mission will be key to rapidly scaling up renewable generation, insulating the UK from global energy shocks, and creating a more stable, affordable energy future.

Where should the costs of decarbonising the grid lie?

Investing in the grid is essential for the energy transition and for delivering cheaper bills in the long-term. However, the costs of must be distributed in a way that is both fair and sustainable, particularly in light of the enduring role that volatile global gas markets will continue to play in shaping UK energy bills through the end of this decade.

Despite the growth of clean power sources, gas is still expected to set the marginal price of electricity a significant proportion of the time, between 15% and 49%, according to NESO. Moreover, most households will still rely on gas heating by 2030, making wholesale gas prices a dominant factor in what consumers pay for energy.

While the expansion of renewables and clean technologies will gradually bring down wholesale electricity costs, these benefits will materialise over the course of the decade, not immediately. Clean energy infrastructure being built now under the Clean Power Mission will begin to ease bills in the 2030s, but wholesale costs alone are only part of the story.

By 2030, the composition of energy bills will shift. Non-wholesale costs – such as network charges, investment support schemes, and Government policy costs – are expected to increase, some significantly. Much of the cost of the transition is currently being levied on energy bills rather than being spread more broadly through general taxation. This includes growing charges for mechanisms like Contracts for Difference, the Capacity Market, and new funding streams for technologies such as nuclear, hydrogen, and carbon capture and storage.

This approach risks placing an unfair burden on consumers during a time of high energy costs and economic uncertainty. NESO's modelling suggests that, under optimistic assumptions, the transition to a clean power system need not increase overall costs to consumers. However, even under that scenario, energy bills are unlikely to come down significantly by 2030. Asking customers to accept this delay while continuing to bear the financial burden of the transition is not a sustainable or equitable strategy.

Government must confront this conundrum head-on. Without action, meaningful reductions in energy bills will not be felt until well into the next decade. That is why there is an urgent need for a short- to medium-term strategy that provides bill relief now, even as we stay on course toward full decarbonisation. This will require a rebalancing of where transition costs fall, potentially shifting more towards progressive funding through general taxation, alongside unlocking more private sector capital and reviewing the fairness of existing levies on consumer bills.

A fair energy transition means not only delivering long-term affordability and security but ensuring that households are supported and protected along the way.

Is it practical for consumer bills to be reduced by £300 before the end of the Parliament?

Yes, it is practical – but only with strategic Government intervention. High energy costs affect far more than just household finances.

Over the next five years, energy bills will remain far too dependent on the volatile price of gas. There are currently no mechanisms in place that guarantee a meaningful reduction in energy bills. Without targeted action, the only way bills can significantly fall is if wholesale gas prices drop substantially – and we cannot rely on international gas markets or geopolitical stability to deliver that.

However, while challenging, reducing bills by £300 is achievable with the right mix of measures. Energy UK has proposed a set of practical options for bringing down bills, organised into three key areas:

1. **Optimising the energy system to deliver savings** – This includes reforms to market design, system balancing, and more efficient use of infrastructure to lower underlying system costs.

2. **Investing public money in a strategic and targeted way** – Smart use of public investment can unlock guaranteed bill reductions, particularly for low-income households and those in poorly insulated homes.
3. **Capitalising on the benefits of a rapidly evolving energy system** – The rapid deployment of clean power, smart technologies, and improved system flexibility can help shield consumers from future price spikes and lower bills in the medium term.

The exact scale of impact from these proposals depends on how policies are designed and how consumers respond, but taken together, they offer a credible path to real and measurable reductions in bills – well within the lifetime of the current Parliament. More details on the proposals are described below:

Optimising the energy system to deliver savings

1. **Maximising the power of flexibility**
    - **Cost:** Negligible
    - **Bill reduction:** At least £115 per year (depending on equipment and engagement)

The fastest way to reduce energy bills is to use our existing system more intelligently. By helping households and businesses shift their energy use to times when electricity is cheapest and most abundant, we can cut costs across the board. This will require uptake of flexible technologies, like smart meter, batteries and electric vehicles, to give people more control and unlock-system wide saving. For this to be successful, we need to ensure that flexibility is accessible and rewarding through reforms to how energy is price, measured and managed.

2. **Working with our European neighbours**
    - **Cost:** Saves the Government up to £10 billion this Parliament.
    - **Bill reductions:** Up to £370m reductions in annual energy costs

The UK must rebuild close energy ties with Europe. In working together to trade electricity more efficiency, we could reduce wholesale prices by £120-370 million per year while relinking our carbon trading systems.

3. **Modernising system operation**
    - **Cost:** Small amount of investment in NESO systems
    - **Bill reduction:** Likely billions of pounds in efficiency savings this Parliament.

The system operator keeps the electricity grid balanced by paying power stations to adjust their output, but this process is getting more expensive, costs are set to nearly double by 2030. While using batteries is often cheaper, outdated systems mean expensive gas plants are still relied on most of the time. Upgrading the national control room and giving the system operator a clearer mandate to use all available flexibility more effectively could cut costs significantly and support the clean energy transition.

Investing public money in a strategic and targeted way to deliver significant bill reductions

4. **Rebalancing policy levies for domestic users**
    - **Cost:** £1.5-6 billion
    - **Bill reductions:** Up to £400 per year (depending on consumer profile)

Policy costs currently inflate energy bills by around £180 per year for the average household, with the majority of these costs sitting on electricity bills. This makes electricity more expensive, deterring households from adopting electric heating solutions, like heat pumps. By investing £1.5 billion annually, the Government could reduce bills for household using electric heating by up to £400 million without increasing costs for others. f all policy costs were removed, it would cost around £6.5 billion annually but could save households between £130 and £370 per year. Future policies, such as those for carbon capture and storage, hydrogen, and nuclear, should be designed to avoid worsening the imbalance between gas and electricity prices.

5. **Targeted consumer support**
    - **Cost:** at least £1.5 billion
    - **Bill reductions:** £400 per year for supported households

Approximately 3.17 million households are in fuel poverty, facing challenges that affect their health and wellbeing. These households need targeted, long-term support to address energy debt. A dedicated scheme, with an annual investment of £1.5 billion, could eliminate the fuel poverty gap and save affected households an average of £400 per year.

6. **Invest in energy efficiency**
    - **Cost:** already-committed £13 billion
    - **Bill reduction:** At least £140 per year – Clean heat/solar mean even larger reductions

The UK has some of the worst insulated homes in Europe. The Government has already committed £13 billion to its Warm Homes Plan. Energy efficiency measures have a critical role to play in reducing bills, and it is critical that the Government delivers on this committed funding.

Capitalising on the benefits of a rapidly evolving energy system

7. **Make the most of the Contracts for Difference**
    - **Cost:** negligible
    - **Bill reduction:** Up to £20 per year

Most new renewable generation, especially offshore wind, is funded through Contracts for Difference (CfDs), which guarantee a fixed price for electricity over 15 years. By 2030, the amount of offshore wind capacity with a CfD will increase significantly. Extending the CfD contract length from 15 to 20 years would lower the

overall cost, potentially saving households £15-£20 per year. The Government is currently consulting on this approach.

8. **Optimise network investment**
    - **Cost:** negligible
    - **Bill reduction:** Almost £100 per year

Achieving clean power by 2030 will require £60 billion of investment in energy transmission. This will ultimately be recouped via energy bills, however the impact that has on bills can be minimised by accelerating critical connections and completing the 80 recommended projects, as well as reducing upfront costs through streamlined planning and encouraging independent developers could further lower network investment costs.
If the Government is serious about affordability, health, and economic resilience, then reducing energy bills by £300 should not only be considered practical – it should be treated as essential.

Does the Ombudsman service provide a responsive, accessible service for consumers in dispute with their energy providers?

The Energy Ombudsman (EO) service does provide an accessible and responsive service for consumers in dispute with their energy providers. However, we have previously recommended that the Government work closely with the regulator to ensure appropriate protections and remedies are in place adding additional levels of protection. We emphasised the need for a single, well-integrated sectoral redress scheme, which would make the process more efficient and effective for consumers.

Given the expanding remit of the EO, which now includes small businesses and heat network customers, it is crucial that the service is adequately resourced to handle this growing workload. The EO should be equipped with the necessary technical expertise to make well-informed decisions, particularly in complex areas such as smart meter cases. This includes addressing situations where energy suppliers may make determinations that are not feasible or ideal. Ensuring proper resourcing and integration within the sectoral redress framework will significantly enhance consumer experience and outcomes.