Fossil Fuels and the Cost of Living

Westminster Hall debate briefing

January 2023

Background

- Inflation has been rising sharply since early 2021. Consumer prices, as measured by the Consumer Prices Index (CPI), were 10.7% higher in November 2022 than the year before.
- 92% of adults in the UK reported an increase to living costs in November-December 2022, with 88% noting rising energy bills as the driving factor.
- Energy price spikes are mostly driven by the volatile nature of fossil fuel prices and, in part, by Russia's invasion of Ukraine due to reductions in gas supply.
- On 8 September 2022, the then Prime Minister Liz Truss announced an energy support package, which capped the unit cost of gas and electricity for households from October 2022. Following this, in the Autumn Statement 2022, Chancellor Jeremy Hunt announced that the EPG would continue some support for households from April 2023 until March 2024.
- While the immediate focus should be on reducing consumer prices, beyond this there is a vital opportunity to ensure the creation of a less volatile system, by swapping out expensive fossil fuels for cheap renewables and meeting our net zero commitments.

How are fossil fuels connected to the cost of living?

- The UK is heavily dependent on gas for energy, with 85% of homes using it for heating and more than a third of electricity supplies coming from gas power plants.
- Both agricultural production and the food chain are fossil fuel intensive- due to the need fertiliser, storage, transport, and processing. The price of food and non-alcoholic drinks has spiked, being 16.4% higher in November 2022 than the previous year, the highest rate of increase since 1977. Fertiliser production relies heavily on fossil fuels and the price of fertiliser has risen significantly since the conflict in Ukraine. Russia is a major exporter of fertilisers and restrictions on exports have exacerbated price spikes on world markets. Food storage and transportation prices have increased in line with fossil fuels, as well as food processing which relies on natural gas for 58% of food processed in the UK.
- The cost of petrol and diesel has also experienced volitivity. On July 4 2022, petrol was an average of 191.6 pence per litre and diesel 199.2 pence per litre, breaking new records.
- A reliance on imported gas and international markets can result in significant price. variations, leading to soaring prices for bill payers. This rise in prices contributed to BP, ExxonMobil, Chevron, Shell and TotalEnergies making a joint profit of $91.5 billion in the first four months of 2022.

What can be done to improve the UK's energy security?

- A rapid deployment of green technologies is needed to cut bills and create a resilient energy system that works in the long-term.

- While this shift will involve initial investment, findings show if already deployed, these upfront costs would have begun to pay off in the form of lower bills for households, as well as stimulating economic growth in industries such as building, car manufacturing and renewables.
- The government can drastically improve energy security by increasing investment in domestic renewables and phase-out gas. Guarantees on the security of supply, adoption of policies to support flexibility and storage, and new ambitions to deploy greater onshore wind and solar will limit reliance on expensive imports and advance energy independence.
- A new report by the Environmental Audit Committee shows cross-party support to advocate for a national war effort to insulate homes and recommends a faster move away from fossil fuels, with greater focus on tidal power and onshore wind.
- Onshore wind is one of the lowest-cost, scalable electricity generation technologies in the UK. Energy produced from onshore wind is up to ten times cheaper than gas, at £42 for a unit of electricity (a megawatt hour), compared to up to £539.59/MWh for gas on the wholesale market. This year's Contracts for Difference (CfD) auction alone secured enough wind and solar capacity to power 12.5 million homes, which will save billpayers an expected £58 a year.
- Energy efficiency investments will also reduce vulnerability to supply shocks. Ensuring homes are better insulated will reduce energy demand for heating, and in turn gas. Home retrofits could cut heat demand by as much as 90% and retrofitting 11 million homes would cut peak domestic heat demand by over 40%, reducing vulnerability to price shocks and high bills. The 2019 Conservative manifesto pledged £9.2 billion in energy efficiency schemes, however annual spending has fallen short, following the scrapping of the Green Homes Grant.

How will a green transition impact household bills?

- Analysis from ECIU finds that if the UK had not delayed the deployment of renewables, insulation, rooftop solar panels, heat pumps and electric vehicles, some households could have saved around £1,750 on bills in 2022. Similarly, food bills this year have risen by more than £400 per household due to the impact of climate change and oil and gas prices on the farming and food system, amounting to an additional cost of £2,150 in annual bills.
- Electric vehicles have lower running costs than petrol and diesel cars, with the average cost to charge being 9-11p per mile of driving, in comparison to 20p per mile for petrol.
- Heat pumps are cheaper to run than gas boilers, with an average annual gas heating bill estimated to be £559 more than an average heat pump counterpart.

What do voters think?

- Polling by YouGov found 77% of the UK public say the government is not doing enough to help people struggling with the cost of living.
- Polling by Ipsos Mori showed that a majority of Britons, 71%, supported greater investment in renewable energy in the UK, compared to just 7% who actively opposed it. In the same survey, a slim majority (51 per cent) supported ending investments in coal, oil, and gas projects abroad.
- According to public opinion polling by Public First, 76% of people support government funding for energy efficient upgrades to homes, whilst just 10% oppose.

- Research by Bright Blue also found high public support for offering financial subsidies for installing better home insultation (69%), switching away from natural gas heat in homes (62%) and subsidising solar panels for homes (69%).
- The UK Climate Assembly supported a ban on sales of new gas boilers from 2030 or 2035 (86%), changes to VAT on energy efficiency and zero carbon heating products (68%), and to raise money through taxation and government borrowing (65%). In addition, 80-90% wind and solar power for electricity supply, compared to 34% for nuclear and 22% for fossil fuels with Carbon Capture and Storage.