

FIXING THE ENERGY PRICE CRISIS

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Introduction

The futures markets are signalling that the energy crisis will continue unabated for more than three years. If this is allowed to happen, the results will be catastrophic.

This factsheet presents concrete steps that the Government can take to reduce energy prices in the next two winters. Regarding the latter, it is vital that steps are taken immediately, so that the gains are delivered in time.

The measures are unapologetically radical. Two decades of conventional wisdom have resulted in the current crisis. Fixing the problem will take many years, and the situation will only start to improve once we move to a radically new path.

For each measure, rough estimates of the benefits are given in total, and in per-household terms, the latter figure arrived at by dividing by 27 million. Consumers would experience some of these savings through bill reductions, and some through reductions in the cost of living.

Winter 2022–23

Some measures can provide relief in winter 2022–23:

Suspend the Emissions Trading System

Large energy users, including, critically, the gas-fired power stations that set market prices, pay £70–80 to emit a tonne of CO₂.¹ Those marginal power stations currently emit 0.41tCO₂/MWh,² so emission permits are adding up to £30 per megawatt hour, which equates to £10 billion over the market as a whole,³ or around £370 per household. Leaving in place a fixed carbon allowance of, say, £20/t would reduce the savings to £8 billion, or £300 per household.

French electricity connectors

Since the spring, French electricity prices have been around €80 higher than in the UK. The futures markets are signalling that this differential will become much larger in the next 12 months. Marginal generators in the UK therefore export power rather than supply to the local market, pushing up UK electricity prices across the board. The interconnectors should be restricted to system balancing and emergency use only, through formal agreement with the French. At €80, savings would amount to £22 billion, or £810 per household.⁴

Table 1. Short-term savings

	Economy (£bn)	Household (£)
Emissions Trading Scheme	10	370
French interconnectors	22	810
Renewables Obligation	6	229
Other	3	111
Total	41	1,520

Reduce the value of ROCs to zero

Wind and solar operating under the Renewables Obligation are currently earning very high market prices, with a very high subsidy on top. These generators have a right to Renewables Obligation Certificates, but their value is set by the Government, and can be reduced to zero. The scheme is expected to cost £6.8 billion in 2022–23,⁵ amounting to £229 per household.

Other direct savings

Cancelling green spending programmes – subsidies for EVs, EV chargers, heat pumps and so on – as well as cancelling the Smart Meter Programme and the mandate for ethanol in petrol would bring up to another £3 billion saving, or £111 per household.⁶

Summary

The total savings delivered for winter 2022–23 would thus amount to £41 billion, or just over £1,500 per household (Table 1).

Winter 2023–24

As noted in the introduction, energy prices are unlikely to return to normal before winter 2023–24. Actions that bring savings on timescales of 1–2 years therefore come into play. In each case, immediate action is required to ensure the benefits are delivered on the timescale indicated:

Replacing marginal gas generation plant

Electricity prices in the UK are set by old, inefficient gas-fired power stations. Average thermal efficiency of UK gas-fired units is 48%. Marginal units will be lower. A 5% more efficient marginal unit reduces market prices by around £15/MWh,⁷ bringing savings of £5 billion, or £184 per household. However, since net zero policies have destroyed investor confidence, plant replacement – new turbines, in other words

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– would need to be paid for by the taxpayer. These should be dual fuel units – capable of running on gasoil, which is likely to be cheaper in times of tight gas supply. The government should also pay for gasoil storage facilities at the power stations. There may be a queue for new plant, so time is of the essence.

A green light for shale gas

Giving a green light to onshore gas in the UK will reduce gas prices somewhat, although the effect will be limited. Any reduction will, however, reduce electricity market prices across the board. Speed is of the essence. With planning permission mostly having lapsed, it would be necessary for the Secretary of State to call in new applications as soon as they were filed. In addition, the Traffic Light System for seismic activity would need to be set at a rational level, perhaps through reference to the British Standard on Noise and Vibration. With these steps in place, gas might start to flow in 12 months. The effect on gas prices is hard to quantify, but a 10p/therm (2%) reduction would lower electricity prices by £15/MWh, a saving of £5 billion per year, or £184 per household. The saving in gas used for domestic heating and industrial heat would be around £1.5 billion, or £54 per household.

Reduce exposure to high EU gas prices

Our marginal therm of gas, which often comes from the EU, is very expensive. European benchmark prices have reached €100/MWh, because of Russian cuts to supply to Germany, while LNG can be had for around €50/MWh. This raises market prices across the board. Eliminating this supply, and replacing it with LNG, would therefore bring savings for consumers, perhaps of as much as £24 billion, or £894 per household.⁸ Achieving this would involve securing new long-term

supply contracts for LNG. It will also be necessary for gas-fired power stations to run sufficiently often to ensure that they can use the fuel delivered.

In total, further savings of £32 billion, or nearly £1,200 per household could be delivered (Table 2).

Therefore, in the space of two or three years, costs could be reduced by £73 billion, or £2,695 per household.

Red herrings

Some steps that are widely proposed are in essence pleading by special interests, and will do nothing to help consumers in the short term anyway.

Insulation programmes

Most of the ‘low-hanging’ fruit of demand reduction – loft insulation, double glazing etc – has been harvested. Programmes that go further will be very expensive, putting further pressure on households, will take years to deliver, and will often fail to meet expectations. Many previous such programmes have been disastrous, with millions of homes damaged by botched work.

Increasing renewables

Increasing renewables will increase electricity market prices, because it will increase the unit cost of gas-fired power stations, which set market prices. The prices of all forms of generation are currently high, but, unlike fossil fuels, there is little hope of renewables ever becoming cheap.

Notes

1. <https://www.statista.com/statistics/1322275/carbon-prices-united-kingdom-emission-trading-scheme/>
2. https://en.wikipedia.org/wiki/Spark_spread
3. The Government’s estimate is £10.6 billion. <https://www.gov.uk/government/publications/uk-emissions-trading-scheme-and-carbon-price-support-apply-for-compensation/compensation-for-the-indirect-costs-of-the-uk-ets-and-the-cps-mechanism-guidance-for-applicants#fn:6>
4. Marginal UK gas-fired plant generates at €140–150/MWh using LNG at €50. French electricity prices have been averaging €210/MWh in recent months. The differential of €80/MWh = £66/MWh. Applied to 334TWh of UK electricity production (per DUKES 2022), that equals £22bn.
5. <https://obr.uk/download/march-2022-economic-and-fiscal-outlook-supplementary-fiscal-tables-receipts-and-other/>
6. <https://www.netzerowatch.com/content/uploads/2022/07/NetZero-Costsheet.pdf>
7. At a gas price of 150p/therm.
8. €50 is £42. Multiplied by the UK’s (non-power system) demand of 519TWh (per DUKES 2022) gives £22 billion.

Table 2. Additional savings in winter 2023–24

	Economy (£bn)	Household (£)
Eliminate supply from EU	22	807
Gas turbine replacement	5	184
Shale gas	5	184
Total	32	1,175