

### WHY ELECTRICITY PRICE ARE GOING HIGHER

The main reason why electricity bills are high and going higher is that we are effectively paying twice, once for expensive and intermittent wind & solar and also for gas power stations as back up. Wind and solar are subsidised in various ways and gas is penalised.

Below is a more detailed explanation of the situation. It is an edited extract from an excellent article by David Turver. To read the full article go to:

https://davidturver.substack.com/p/why-are-electricity-bills-going-up

#### **Cost of Subsidies**

If we start with the biggest scheme, Renewable Obligations (ROs) we can see from the Office of Budget Responsibility Outlook that the RO scheme cost £7.6bn in 2023-24 and the cost is forecast to rise to £8.5bn in 2026-27. This element of our bills will continue to rise.

The second scheme is Feed-in-Tariffs (FiT) and we can see from Ofgem's latest report that it cost nearly £1.9bn in 2023-24, or around £221/MWh. FiT contracts are index-linked so we can expect the cost of the FiT scheme to continue to rise in line with inflation, meaning this element of our bills will also go up.

Finally we have the Contract for Difference (CfD) scheme where data from the Low Carbon Contract Company shows the CfD scheme cost a record £2.4bn in subsidies during the calendar year 2024. CfD contracts are index-linked too, so we might expect the cost of subsidies to rise as the indexation of existing contracts overwhelms the lower prices of some new developments.

We can therefore expect the total cost of subsidies of about £12bn, or the equivalent of £420 per household to continue to go up over the next few years.

## **Grid Balancing and Backup**

If we turn now to balancing and backup costs, the National Energy System Operator (NESO) report for 2023/24 shows grid balancing cost £2.54bn. As the grid take on more intermittent sources, we might expect the volume of grid balancing to increase, but the cost will be largely dependent on the cost of gas.

According to the Office for Budget Responsibility (OBR) backup from the Capacity Market cost £1bn in 2023/24 and they forecast these costs to rise to £4bn per year in 2027/28. Even if balancing costs remain constant, we can expect the total costs of balancing and backup to rise by £3bn by 2027/28 or the equivalent of over £100 per household.

#### Clean Power 2030

NESO estimated that the Clean Power 2030 Plan (CP2030) would cost  $\pounds 44$ -48bn per year to the end of 2030, or a total of  $\pounds 264$ -290bn over the six-year period. Assuming a cost of capital of 8% and operations and maintenance costs of 2% for CP2030, would give an ongoing cost of  $\pounds 26$ -29bn per year or  $\pounds 900$ -1,000 per household, offset to some extent by using less gas with the maximum gas saving of about  $\pounds 7$ bn per year if gas prices remain at 120p/therm for the foreseeable future.

# **Taxes on Gas-Fired Electricity**

Energy bills are also increased by the taxes placed on gas-fired electricity generation which is subject to the Emissions Trading Scheme (ETS). The UK ETS Authority has set the carbon price for 2025 at £41.84 per tonne of carbon dioxide. Actual carbon prices vary somewhat, but this price can be used to estimate the extra costs associated with gas-fired generation of electricity. Modern gas turbines emit around 350kgCO2/MWh of generation, so gas-fired generation attracts a carbon tax of about £14.60/MWh. NESO's CP2030 plan anticipates carbon

prices rising substantially to around £147 per tonne, so even though the amount of gas-fired generation on the grid will fall, the cost of this generation per MWh will go up with increased carbon taxes adding further upward pressure to energy bills.

### **Conclusions**

The direct and indirect cost of renewables has been the biggest driver of increased electricity bills since 2019. Increased gas prices have also played a part in this increase in the past, but there is reason to believe gas prices will now remain low due to increased supply and probable lower demand. Wholesale natural gas prices for winter 2025 were over 80p/th and the price for 2030 is currently under 60p/th<sup>1</sup>.

However, looking forward we can see that electricity bills are going to keep on rising because of increased subsidies and backup costs. The extra spending on new renewables and grid infrastructure contained in CP2030 is an additional reason for prices continuing to go up from their already high levels.

<sup>&</sup>lt;sup>1</sup> https://www.businesswisesolutions.co.uk/energy-market-snapshot/