PROSPERITY INSTITUTE

Good Money After Bad

The Spiralling Costs of British Green Energy Initiatives and What We Can Do About It

David Turver

Contents

Glossary

AR7	Allocation Round 7	The seventh CfD auction round for new renewables projects (and AR7a variant).
BECCS	Bioenergy with Carbon Capture and Storage	Technology combining biomass power generation with carbon capture.
CCA	Climate Change Act	The 2008 British legislation setting legally binding carbon budgets and emissions targets.
CCS	Carbon Capture and Storage	Technology to capture carbon dioxide from industrial processes or power plants and store it.
CCUS	Carbon Capture, Utilisation and Storage	Technology to capture carbon dioxide from industrial processes or power plants, use it or store it.
CfD	Contracts for Difference	Subsidy mechanism where generators receive a fixed 'strike price' for electricity, with top-ups or repayments based on market prices.
CM	Capacity Market	A mechanism designed to prevent blackouts by paying generators to be available at times of grid stress.
DACCS	Direct Air Capture with Carbon Storage	Technology that removes carbon dioxide directly from the atmosphere.
DESNZ	Department for Energy Security and Net Zero	British Government department responsible for energy policy (successor to BEIS).
FiT	Feed-in Tariff	Subsidy scheme, now closed to new entrants, paying small-scale generators, mainly solar, a fixed rate for electricity produced.
GGSS	Green Gas Support Scheme	Tariff support scheme for biomethane production via anaerobic digestion, funded by the Green Gas Levy.
GGL	Green Gas Levy	Levy on fossil gas suppliers to fund the Green Gas Support Scheme. Charged to customers via gas bills.

HAR1	Hydrogen Allocation Round 1	First competitive auction for green hydrogen production projects.
HAR2	Hydrogen Allocation Round 2	Larger follow-on round targeting significantly more capacity.
LCCC	Low Carbon Contracts Company	Government-owned company that manages CfD contracts, collects supplier levies, and handles payments to generators.
NESO	National Energy System Operator	Independent public body (formerly National Grid ESO) responsible for electricity energy system operation, balancing, and network planning.
OBR	Office for Budget Responsibility	Independent fiscal watchdog that produces official economic forecasts.
RAB	Regulated Asset Base	Financing model for Sizewell C nuclear plant allowing consumer levies during construction.
RIIO	Revenue = Incentives + Innovation + Outputs	Ofgem's regulatory framework for setting price controls on electricity and gas networks.
RO	Renewables Obligation	The overall scheme, closed to new entrants, that requires suppliers to present ROCs or pay a buy-out price.
ROCs	Renewables Obligation Certificates	Certificates issued to accredited renewable generators.
SAF	Sustainable Aviation Fuel	Low-carbon aviation fuel produced from biomass, waste, or power-to-liquids.
TNUoS	Transmission Network Use of System	Charges for using the high-voltage electricity transmission network.

About the author

David Turver is a degree-qualified engineer and now retired consultant, technologist and large-scale programme manager. He has focused his numerical and engineering skills on British energy policy and net zero and writes about it extensively on his Substack and for various think tanks. David can sometimes also be found on GB News and other outlets discussing energy policy.

Endorsements

“Britain’s high energy costs are not simply the result of recent geopolitical shocks, but the cumulative consequence of decisions taken by successive governments over two decades. In this excellent paper, David Turver shows how the full burden of the energy system has been deliberately obscured by dispersing it across different charging mechanisms and schemes. The net effect is to allow harmful policies to persist because their underlying costs are never properly confronted by MPs, the media, businesses, or households. This matters not only for economic prosperity and national security, but for the functioning of our democracy, which ultimately depends on voters having reliable access to the true state of affairs if they are to exercise informed judgement at the ballot box.”

—Maurice Cousins, Campaign Director, Net Zero Watch

"The effects of Net Stupid Zero on British households truly know no bounds. As this new report from the Prosperity Institute shows, the green vanity projects pursued for twenty years by our political establishment are rapidly spiralling out of control. The costs are often hidden from billpayers, but by 2031, when they'll possibly be paying hundreds more each year for their energy bills in order to fund renewables, there will be nowhere left to hide. We need radical change on energy policy and we need it now—Britain's future prosperity depends on it."

—Richard Tice MP, Deputy Leader and Spokesperson for Business, Trade and Energy, Reform UK

Executive summary

Britain currently has the highest industrial electricity prices and the fourth-highest domestic electricity prices in Europe. While high gas prices contribute to wholesale costs, this paper argues that the dominant driver of elevated electricity bills is the cumulative impact of policies designed to accelerate renewables deployment and achieve Net Zero.

Electricity subsidies (Renewables Obligation Certificates (ROCs), Contracts for Difference (CfDs), Feed-in Tariffs (FiTs), and the Sizewell C Regulated Asset Base (RAB) levy) have risen from £0.5bn in 2010/11 to £11.8bn in 2024/25 and are forecast to reach £14.9bn by 2030/31. Grid integration costs—covering transmission network charges, balancing services, and the Capacity Market—have increased from £2.8bn to £8.0bn over the same period and are projected to rise sharply to £25.3bn by 2030/31. Combined**, these subsidy and grid integration costs have grown six-fold since 2010/11 to £19.8bn in 2024/25 and are forecast to exceed £40bn annually by 2030/31. This will be equivalent to more than £1,400 per household.**

Additional policy-driven costs from Carbon Capture and Storage (£21.7bn committed over 25 years), green hydrogen support (potentially £16bn over 15 years for the first two allocation rounds), the Green Gas Levy, and the Sustainable Aviation Fuel mandate will add further billions per year, largely recovered through energy bills or higher consumer prices.

The paper contends that **these costs stem primarily from the large-scale integration of intermittent renewables** (wind, solar, and biomass). Their full cost and intermittent nature make renewables uncompetitive in a free market, so they need to be subsidised. Their intermittency drives substantial additional expenditure on grid expansion, balancing services, curtailment payments, and backup capacity. In contrast, the direct fuel cost of gas-fired generation remains relatively modest by comparison.

Any incoming market-driven government committed to lowering energy prices and restoring national prosperity will need to treat these costs as a "Day One" matter and begin pursuing cuts immediately.

The last general election was in part fought over an alleged £20bn hole in the national budget; yet, by the time of the next election, Britain will be voluntarily paying around £40bn per year or more on unsustainable green initiatives which have made our grid less reliable and less productive.

To address these costs, the paper recommends a series of measures which should be pursued, particularly if carbon targets and carbon taxes were removed. These include:

- Repealing or amending the Climate Change Act and adjusting carbon budgets on economic grounds.
- Ending or curtailing renewables subsidies, including setting the Renewables Obligation to zero and renegotiating existing CfD contracts.
- Scaling back grid expansion plans and reducing reliance on long-term Capacity Market

contracts for battery storage in favour of firm capacity.

- Renegotiating or cancelling contracts for Carbon Capture, green hydrogen, and related schemes, with compensation limited to verified sunk costs up to a clear cut-off date.
- Renegotiating contracts and reforming the Revenue = Incentives + Innovation + Outputs (RIIO) network price-control framework to improve cost discipline.

The paper concludes that current trajectories are unsustainable and risk serious economic damage. It argues that decisive action—including contract renegotiation, subsidy removal, and a reorientation toward affordability and security of supply—is required, even if this involves difficult political and legal challenges. The cost experienced via household and business energy bills and taxes is a grave threat to our national prosperity.

Introduction

The latest figures published by the Government on the cost of energy in 2025 showed Britain suffered from the highest industrial electricity prices and the fourth highest domestic electricity prices in Europe.[1,2] These high costs are often blamed on gas[3] and it is true that higher gas prices tend to lead to higher wholesale costs of electricity. However, this superficial analysis ignores the real causes of Britain's soaring energy costs.

An earlier Prosperity Institute paper, *It's Broke, Fix It*, traced the overarching history of how the push for renewables left Britain's electricity market in such a critical state.[4] Overall generating capacity has increased through the addition of renewables, but reliable dispatchable capacity and actual electricity generation have decreased. The result has been rising bills and increasing unreliability in Britain's energy grid.

The push for renewables has also introduced a plethora of hidden costs in the system that drive electricity prices higher, principally subsidies and grid integration costs. In addition, extra costs are being loaded on to the overall energy system through initiatives such as carbon capture, green hydrogen, the green gas levy, and sustainable aviation fuel.

The purpose of this paper is to document the scale of these costs and suggest ways they can be reduced or eliminated.

1 DESNZ, "International non-domestic energy prices", QEP5.4.1-5.4.4, accessed 23 July 2026. (link)

2 DESNZ, "International domestic energy prices", QEP5.6.1-5.6.3, accessed 23 July 2026. (link)

3 Simon Evans, "Expensive gas still biggest driver of high UK electricity bills, says UKERC", *Carbon Brief*, 28 January 2026. (link)

4 Rupert Darwall, *It's Broke, Fix It: Where British Energy Policy Went Wrong and How to Get It Right* (London: Prosperity Institute, 2026). (link)

1. Electricity market costs

- Renewables subsidies (ROCs, CfDs, FiTs, and the Sizewell C RAB levy) have grown from £0.5bn in 2010/11 to £11.8bn in 2024/25 and are forecast to reach £14.9bn by 2030/31.
- Grid integration costs (transmission, balancing services, and the Capacity Market) have risen from £2.8bn to £8.0bn over the same period and are projected to more than triple to £25.3bn by 2030/31, largely due to the challenges of integrating intermittent renewables.
- Combined subsidy and grid integration costs have **increased six-fold since 2010/11 to £19.8bn in 2024/25 and are forecast to exceed £40bn annually by 2030/31**—significantly higher than the direct fuel cost of gas-fired generation.

Over the past two decades, successive governments have intervened in the energy market by introducing many hidden costs on energy that have imposed significant burdens on the economy.

The hidden costs in the electricity market can be split into subsidies and grid integration costs. The scale of these costs is mostly driven by renewables in the form of wind, solar and biomass. However, the cost of new nuclear power from Sizewell C will soon be seen in bills as this plant is being subsidised using a RAB model.

Subsidies

Renewables are subsidised by three subsidy schemes:

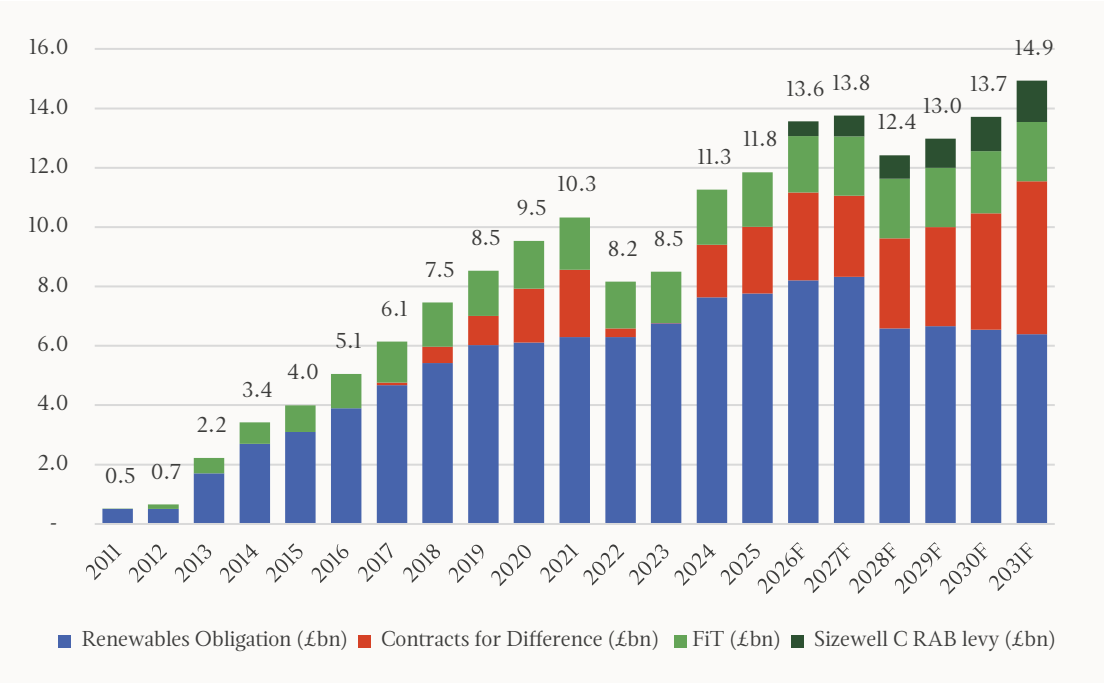
- ROCs
- CfDs
- FiTs.

The Sizewell C nuclear power plant is subsidised through the RAB levy.

In total **these subsidies have risen from £0.5bn per year to £11.8bn in 2024/25 and are forecast to rise further to £14.9bn in 2030/31** as shown in Figure 1.

As Government-mandated subsidies, these sums are all funded directly by tax- and billpayers. Without these subsidies, renewables would not be able to sustain themselves in an open and competitive market.

Figure 1: *Actual and forecast electricity subsidy cost by fiscal year ended March (£bn)*



Chart, Prosperity Institute. Sources: LCCC, OBR, Ofgem

ROCs

ROC-funded generators are awarded certificates for each unit of electricity generated in addition to the market price they receive for their output. Accordingly, **electricity from these generators will always be more expensive than market rates, often set by gas.** Even though this scheme is closed to new participants, the OBR states that **the RO scheme cost rose from £0.5bn in 2010/11 to £7.8bn in 2024/25 and is forecast to rise to £8.3bn in 2026–27** before falling back as old generators are phased out and Drax biomass plant moves from ROCs to CfDs. It should be noted that 75 percent of the cost of the ROC scheme for domestic users is now borne by taxpayers and not billpayers. However, **it is expected the costs will return to energy bills in April 2029**.

FiTs

FiTs are paid mostly to small solar installations. FiT generators are paid a fixed amount to generate electricity plus a smaller amount for the power they export (or are deemed to export) to the grid. Again, this scheme is closed to new entrants; however, Ofgem reported the scheme cost rose from £0.01bn in 2010/11 to £1.8bn in 2024/25.[5] In a recent consultation, **the Government forecast that the cost of FiTs will rise gently to £2.1bn in 2029/30 before falling back to £2.0bn in 2030/31.**[6]

CfDs

The CfD scheme is used for the now annual renewables auctions. Here, generators receive a fixed amount for the power they generate. They receive the market value for their power and

5 Ofgem, "Feed-in-tariff report 2024/25", 11 December 2025. (link)

6 HM Government, "Feed-in-tariffs final consultation analytical annex", accessed 23 July 2026, Table 1, 7. (link)

are then paid a top-up to the strike price of their contract. If market prices are above the strike price, they must pay back the difference. Data from the Low Carbon Contracts Company (LCCC) shows CfD subsidies cost £0.1bn in 2016/17 rising to £2.2bn in 2024/25. **The Office for Budget Responsibility (OBR) forecasts the cost of the CfD scheme is set to rise to £5.1bn by 2030/31.**

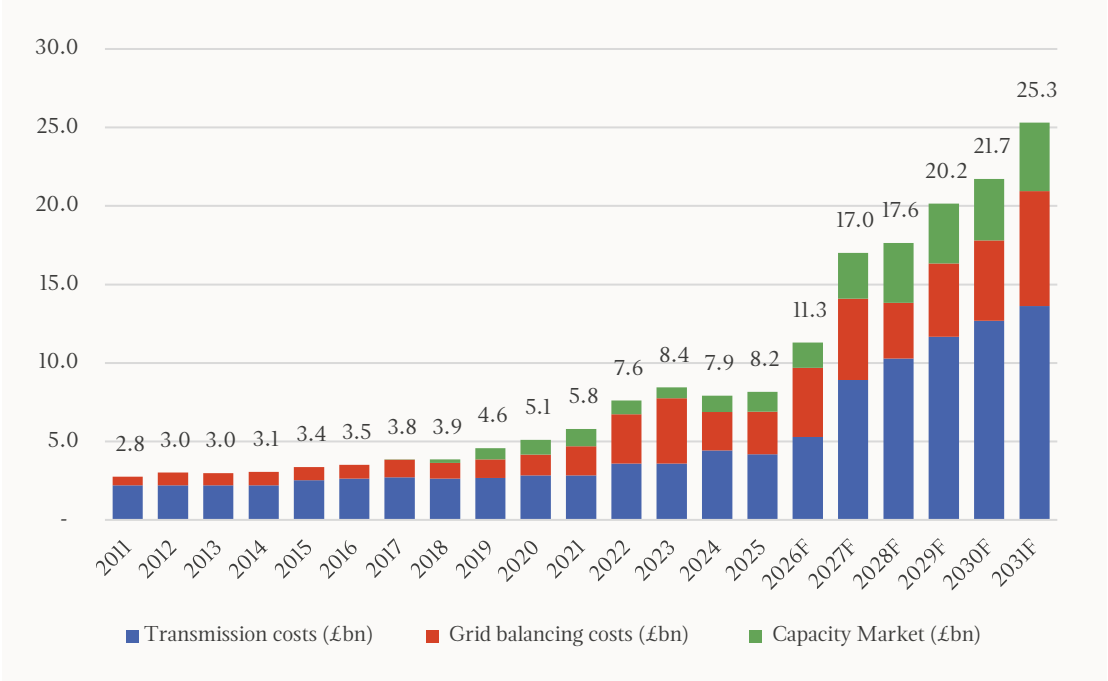
Sizewell C RAB scheme

The Sizewell C RAB scheme is designed to cover the financing costs of construction, and the OBR claims the levy cost £0.5bn in 2025/26 and forecast that **the cost will rise to £1.4bn in 2030/31.**

Grid integration costs

Until recently, grid integration costs were a relatively minor element of overall system costs. However, the growth of intermittent renewables on the grid has led to the need for greater spending on backup, grid balancing and expansion. Figure 2 shows how these costs have changed since 2010/11.

Figure 2: *Actual and forecast grid integration costs by fiscal year ended March (£bn)*



Chart, Prosperity Institute. Sources: NESO, OBR

Total grid integration costs have risen from £2.8bn in 2010/11 to £8.0bn in 2024/25 and are forecast to more than triple to £25.3bn by 2030/31.

Transmission costs

Transmission costs represent the cost of building and operating the high-voltage electricity network. The National Energy System Operator's (NESO) historic reports for Transmission Network Use of System (TNUoS) charges only go back to 2013/14 when the cost was £2.2bn. The costs for earlier years have been held constant at this level. **TNUoS charges rose to £4.2bn in 2024/25 and in its latest five-year view NESO forecasts costs to more than triple to £13.6bn by 2030/31.**

Curtailment costs

The electricity grid must balance supply and demand every second of each hour of each day of the year. This task is made more difficult by the addition of variable renewables like wind and solar, where output may vary because the wind blows harder or suddenly drops, or the sun goes behind a cloud. Sometimes wind farms have to be turned off because supply is greater than demand, or because the grid cannot handle their output. **In these situations, we pay to turn them off and these are called "curtailment" charges.** Sometimes we need to pay even more to turn on gas-fired power stations to keep the grid in balance. NESO reports grid balancing costs in annual reports.[7] Their reports only go back as far as 2019/20 on their website, however earlier reports from 2013/14 were retrieved earlier and the National Audit Office produced a report showing balancing costs from earlier years.[8] Balancing costs have risen from £0.6bn in 2010/11 to £2.5bn in 2024/25.

In a recent forecast, NESO provided several scenarios for grid balancing costs depending on whether they follow the Holistic Transition (highest balancing costs), Electric Engagement or Hydrogen Evolution (lowest balancing costs) pathway.[9] For the purposes of this analysis the midpoint of the highest and lowest forecast in each year has been used. By this measure, **balancing costs will almost triple from £2.5bn in 2024/25 to £7.3bn in 2030/31.**

Capacity market

The Capacity Market (CM) is a mechanism designed to prevent blackouts. Instead of paying for electricity used, the CM pays energy providers simply to be available. Conventional generators, battery storage, and demand-side response providers compete in forward auctions to guarantee to deliver power or reduce consumption during times of grid stress. **The OBR reports on historical and forecast CM costs that have risen from £0.2bn in 2017/18 to £1.3bn in 2024/25 and are forecast to rise even further to £4.4bn per year by 2030/31**.

Total electricity subsidy and grid integration costs

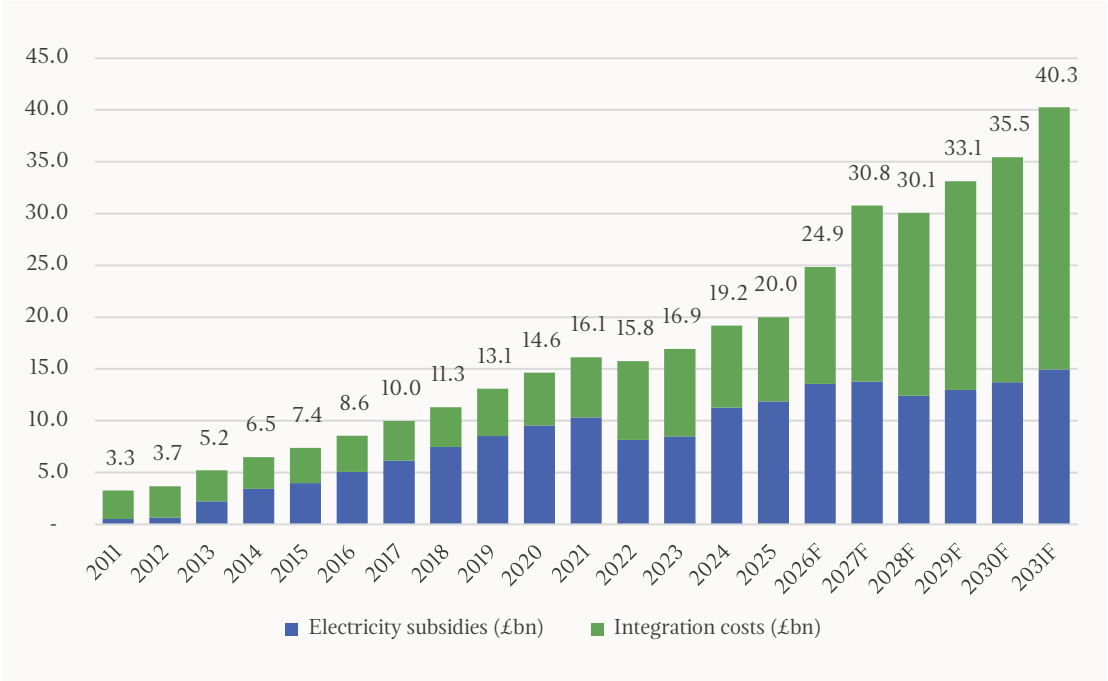
Figure 3 pulls together the actual electricity subsidy and grid integration costs since 2010/11 and the forecast out to 2030/31. **Overall costs have risen six-fold from £3.3bn in 2010/11 to £19.8bn in 2024/25 and are forecast to more than double again to £40.3bn in 2030/31. This will be equivalent to more than £1,400 per household per year.**

7 NESO, "Balancing costs", accessed 23 July 2026. (link)

8 National Audit Office, "Electricity Balancing Services", May 2014, 18. (link)

9 NESO, "2025 Annual balancing costs report workbook", accessed 23 July 2026. (link)

Figure 3: *Actual and forecast subsidy and grid integration costs by fiscal year ended March (£bn)*



Chart, Prosperity Institute. Sources: LCCC, NESO, OBR, Ofgem

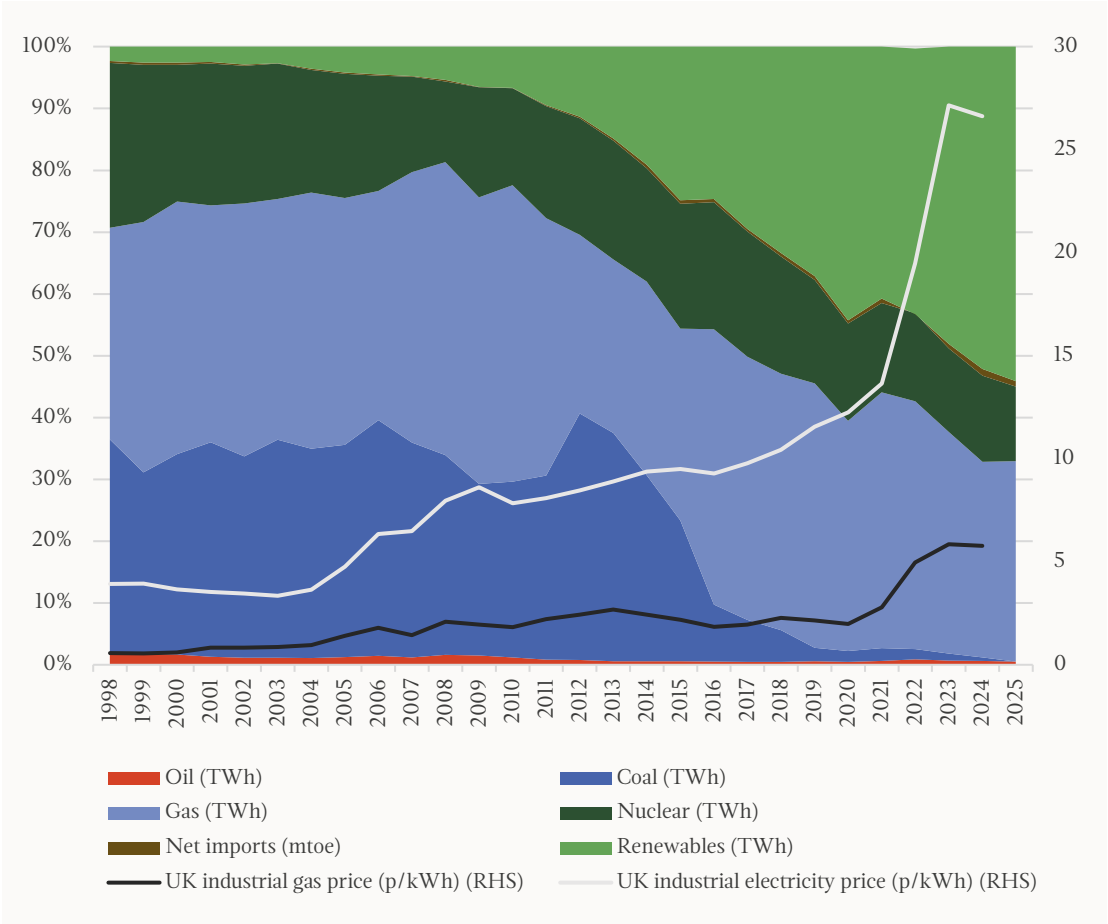
By way of contrast, 188.8TWh of gas was used to generate electricity in 2025 at an average cost of 3.3p per kWh which means a total of £6.2bn was spent on fuel for gas-fired generation.[10,11] If gas prices were at their current elevated level of ~120p per therm or 4.1p per kWh the cost of gas for electricity would have been £7.7bn. The cost of gas pales into insignificance compared to the total cost of generating electricity from renewables.

The impact that subsidies and grid integration costs have had on electricity prices as the share of electricity generation from renewables has risen is shown in Figure 4.

| 10 DESNZ, "Energy Trends natural gas supply and consumption ET4.1", accessed 23 July 2026. (link)

| 11 DESNZ, "Prices of fuels purchased by major UK power producers QEP3.2.1", accessed 23 July 2026. (link)

Figure 4: *Share of electricity supplied by source (%), prices (p/kWh)*



Chart, Prosperity Institute. Source: DESNZ

Gas prices remained relatively stable around 2p/kWh from 2008, the year of the Climate Change Act, to 2021 but electricity prices rose more than 50 percent from under 8p/kWh to over 12p/kWh. During that period, the share of renewables (defined as hydro, bioenergy, wind and solar) went up from just over 5 percent to over 37 percent of electricity supplied. From 2022 onwards the energy crisis that began before the war in Ukraine caused gas prices to more than double and electricity prices followed suit. The price data for 2025 has not yet been released, however we can expect both gas and electricity prices to have moderated. Beyond that, the forecast data from the OBR and NESO shows the cost of the electricity system will rise, forcing prices even higher.

This section has shown that despite persistent claims that gas is to blame for high electricity costs, it is renewables that have driven a massive increase in the costs of running the electricity system. The cost of subsidies and grid integration has risen six-fold since 2010/11 to almost £20bn per year. Official forecasts from the OBR and NESO show this problem is going to get significantly worse as the total cost of renewables is forecast to double again to over £40bn per year.

2. Other energy market costs

- The Government has committed **up to £21.7bn over 25 years to Carbon Capture and Storage**, with three-quarters expected to be recovered through energy bills, although several major projects have already been cancelled.
- **Green hydrogen support (via the Hydrogen Allocation Rounds) is extremely expensive, with HAR1 projects contracted at £241/MWh—roughly eight times the cost of natural gas**—and will be funded through the Gas Shipper Obligation on bills.
- Additional costs from the Green Gas Levy and the Sustainable Aviation Fuel (SAF) mandate are adding **further hundreds of millions per year to energy bills and airfares.**

The drive toward Net Zero has led the Government to introduce further subsidies and incentives to drive decarbonisation. These include Carbon Capture and Storage (CCS), Sustainable Aviation Fuel (SAF), green hydrogen, and the Green Gas Levy (GGL) to stimulate spending on producing methane from sustainable sources.

Carbon capture and storage

Net Zero demands that Britain reduces its emissions of greenhouse gases to net zero by 2050. It is recognised that it will be difficult to decarbonise some sectors such as power generation and aviation as well as some high-temperature industrial processes. CCS is a technology aimed at capturing carbon dioxide from these processes and storing it in geological formations deep underground. In October 2024 the Government confirmed that up to £21.7bn would be made available over 25 years to fund spending on two CCS clusters in the north of England, the East Coast Cluster (ECC) in the northeast, and HyNet in the northwest. The Government is also underwriting risks relating to the programme, creating contingent liabilities worth up to £34bn. **It is envisaged that three-quarters of the cost of Carbon Capture, Utilisation and Storage (CCUS) funding will be met by levies on bills with the rest coming from the Exchequer.**

The ECC is centred on Teesside and the Humber. Three capture projects have been selected for initial consideration but one of them, H2 Teesside, has already been cancelled due to "material and significant changes in circumstances". Follow-on projects include CF Fertilisers ammonia plant that has already closed and the Drax Bioenergy with Carbon Capture and Storage (BECCS) project that has also been cancelled due to limited Government support, with the £47.6m of spending to date written off. This is hardly surprising because other CCS projects across the world have recently been cancelled, for example the Heidelberg project in Sweden and dozens of projects in the US have been cancelled by the US Government because they are not economically viable.

In addition, there are very few Direct Air Capture with Carbon Storage (DACCS) projects operating globally, those that exist are tiny, and the flagship Icelandic Climeworks Mammoth project has

allegedly failed to capture enough carbon to cover its own emissions.

Green hydrogen

Hydrogen is classified according to its method of manufacture. Conventional hydrogen, made using the steam-methane reforming process, is termed grey hydrogen. Blue hydrogen uses the same process as grey hydrogen, but the carbon is captured and stored. Green hydrogen is made by electrolysis using renewable energy from wind or solar power. Both blue and green hydrogen are classified as low-carbon. The Government sees hydrogen-to-power as a key technology to support decarbonising the electricity system.

In 2021, the Government set out its hydrogen strategy, calling for 5GW of low-carbon hydrogen production capacity to be online by 2030.[12] This target was doubled to 10GW of low-carbon hydrogen with at least half coming from electrolytic, or green hydrogen, as part of the 2022 energy security strategy.[13] The results of the first Hydrogen Allocation Round (HAR1) were released in December 2023 with 11 successful projects with a total capacity of 125MW. It is expected that these projects will cost over £2bn in revenue support over 15 years and over £90m from the Net Zero Hydrogen Fund has been allocated to support the construction of these projects. **As shown in Figure 5, the cost of the hydrogen produced in this scheme was £241/MWh in 2022/23 prices and index-linked.**[14] **This is approximately eight times the cost of gas (£33/MWh) paid by power generators in 2025, meaning the fuel costs of power from green hydrogen will be eight times those of natural gas, making it unviable**.[15] It is proposed that the revenue support for green hydrogen will be funded through the Gas Shipper Obligation which means the costs will eventually find their way into energy bills.[16]

12 HM Government, "UK Hydrogen Strategy", August 2021. (link)

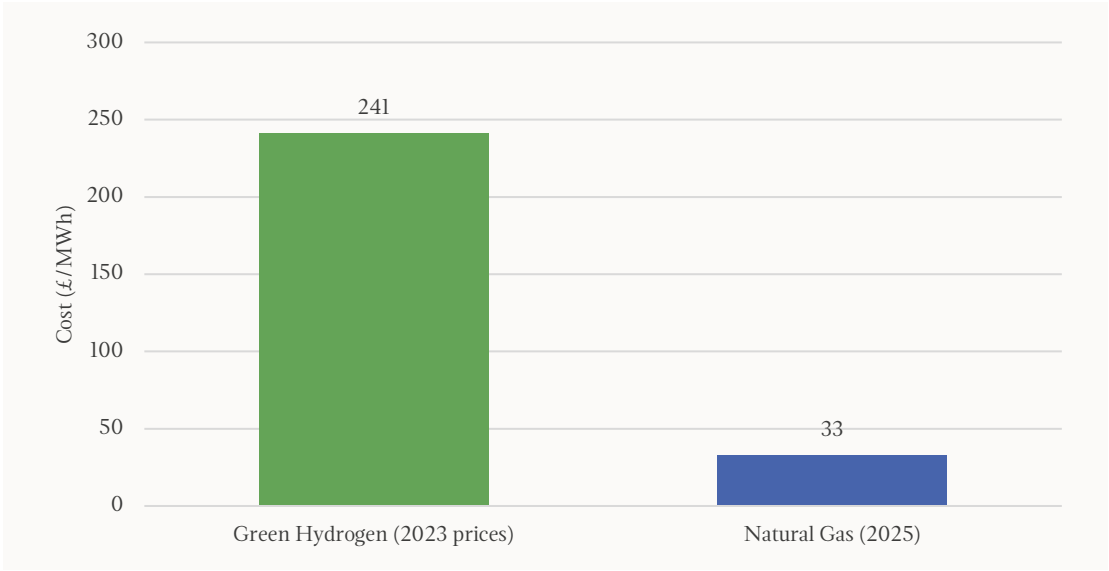
13 HM Government, "British energy security strategy", 7 April 2022. (link)

14 HM Government, "Hydrogen Production Business Model, HAR1 successful projects", 14 December 2023. (link)

15 DESNZ, "Prices of fuels purchased by major UK power producers, QEP3.2.1".

16 HM Government, "Funding mechanism for the hydrogen production business model", April 2025. (link)

Figure 5: *Green hydrogen vs natural gas cost comparison (£ per MWh)*



HAR2 is expected to be seven times larger in scale than HAR1, targeting 875MW of capacity.[17] The government announced 27 projects had been shortlisted in April 2025 and it was expected that contracts would be awarded in early 2026 but the Government has not issued any hydrogen market news since July 2025.[18]

Green gas levy

The GGL applies to licensed fossil gas suppliers in Great Britain and funds the GGSS. The Green Gas Support Scheme (GGSS) provides tariff support for plants producing biomethane via anaerobic digestion. Up to the end of March 2026, almost £40m has been paid to producers in return for injecting 649GWh of green gas into the grid. This equates to about £62/MWh or almost double the cost of gas used by large power generators. The GGL is charged to customers through gas bills and is currently levied at a rate of £3.86 per meter per year. **The OBR forecasts the cost of the GGL will rise to £228m per year by 2030/31.**

Sustainable aviation fuel

Jet aircraft are fuelled by aviation kerosene and of course burning kerosene produces carbon dioxide that is emitted into the atmosphere. Nobody has found a suitable alternative to powering aircraft so the push to decarbonise aviation relies on producing SAF from biomass waste or from ethanol or methanol produced from agricultural crops. British airlines are also subject to the Emissions Trading Scheme which will be the subject of another paper.

The Government has implemented the SAF mandate designed to decarbonise aviation fuel. This policy mandates an increasing amount of SAF in the overall British aviation fuel mix, starting at 2 percent in 2025, rising linearly to 10 percent in 2030 and then to 22 percent in 2040.

17 HM Government, "Funding mechanism for the hydrogen production business model".

18 HM Government, "Hydrogen Update to the Market July 2025", July 2025. (link)

To support the development of SAF, the Government is introducing a revenue support mechanism. This sets the price of SAF derived from biomass at £4.70 per litre and power-to-liquids SAF at £5 per litre. In early June, at a time of elevated oil prices, average conventional jet fuel prices were $146.25 per barrel and averaged around $100 per barrel in 2025. Working through the arithmetic, the recent price equates to £0.69 per litre at $1.33/£. **SAF is going to cost 6.8–7.2 times more than conventional fuel even at a time of elevated oil and refined product prices.**

The Government estimates that a single 100kt plant would cost industry £100m–£150m per year, or about £2bn over a 15-year contract period. They also estimate that a single 100kt plant would produce enough SAF to meet about one-third of the mandate in 2030, so the annual costs in 2030 would be £300m–£450m. The cost of this will be borne by customers through increased ticket prices.

Total other energy market costs

This section has shown the Government has imposed additional costs on the energy system in the form of carbon capture, green hydrogen, and green gas. These are being imposed as stealth taxes that will mostly find their way onto energy bills. Figure 6 shows the estimated cost of these items by the early 2030s.

Figure 6: *Estimated extra cost of green levies by early 2030s (£m)*

Item	Total cost (£bn)	Year	Cost per year (£m)
CCUS	21.7	25	868
Green Hydrogen (HAR 1 & 2)	16	15	1,067
GGL			228
Total			**2,163**

The committed support for CCUS is £21.7bn over 25 years, or about £868m per year. The ambition for Hydrogen Allocation Round 2 (HAR2) is a further 875MW of green hydrogen. If this capacity is awarded at the same price as HAR1 projects, the £2bn over 15 years for HAR1 will multiply up to £16bn for HAR1 and HAR2 together, or £1.067bn per year. **Adding the OBR estimate for the cost of the GGL in 2030/31 gives a total of £2.163bn per year of extra costs added to the energy system. In addition, the SAF mandate will have the impact of increasing airfares, making holidays and business travel more expensive.**

3. What to do about it?

- The Government must roll back interventions in the energy market by repealing or amending the Climate Change Act and adjusting carbon budgets on the grounds of significant economic harm (particularly high industrial electricity prices).
- We must end or curtail renewables subsidies by amending the Renewables Obligation Order, cancelling or renegotiating existing CfD contracts, and limiting long-term Capacity Market agreements for batteries in favour of firm capacity.
- We must scale back grid expansion and other green initiatives (CCUS, hydrogen, Green Gas Levy) by threatening or executing contract cancellations, with compensation limited to verified costs incurred up to a clear cut-off date.

The fact that Britain has the highest industrial electricity prices in the developed world ought to lead to the declaration of an energy emergency and the implementation of fairly drastic action to bring prices down. The time has come to roll back these pernicious government interventions in the energy market in order to lower both taxes and bills and restore British prosperity. Opposition political parties have already made a start by pledging to repeal the Climate Change Act, eliminate carbon taxes on electricity, scrap ROCs early and strike down contracts awarded in the AR7 renewables auction.[19, 20] This section considers what might be done to bring energy costs down.

Repealing Climate Change Act

Primary legislation

Repealing the Climate Change Act (CCA) is essential to achieving the long-term aim of removing burdensome Net Zero obligations. It should be in the general election manifesto of any market-minded party, in order to ensure, via the Salisbury Convention, that it is not derailed in the House of Lords. This would require primary legislation and accordingly would take a long time, but is entirely achievable with planning, political will, and a parliamentary majority.

Secondary legislation

However, there are other, less painful ways to defang the CCA fairly quickly via secondary legislation.

- Section 2 of the CCA makes provision for changing the percentage reduction in emissions if there are significant developments in the scientific knowledge about climate change.[21]
- Section 10(2) sets out the matters to be considered when setting or amending carbon

19 Claire Coutinho, "Energy is prosperity", *Conservatives*, 6 October 2025. (link)
20 Richard Tice (@TiceRichard), "RENEWABLE NOTICE", *X*, 16 July 2025. (link)
21 UK Legislation, "Climate Change Act 2008, section 2". (link)

budgets.[22] These matters include scientific knowledge about climate change; technology relevant to climate change; economic circumstances; social circumstances and the impact of carbon budgets on energy policy.

- Section 21 covers the rules for amending carbon budgets after they have been set.[23] Carbon budgets can only be amended if "there have been significant changes affecting the basis on which the previous decision was made."

If the technical and economic basis for setting carbon budgets has changed since the decisions were made, for instance the highest industrial electricity prices in the developed world, there ought to be grounds for amending carbon budgets before full repeal of the Act. However, to mitigate any challenge from the Climate Change Committee, the leadership may need to be replaced by energy realists.

Cutting renewables subsidies

ROCs

The legislation supporting the renewables obligation is relatively weak. It should be possible to end the scheme by **amending or repealing the Renewables Order 2015 (a statutory instrument)** which is used to set the number of certificates suppliers are obliged to purchase.[24] If this were set to zero, the certificates would have no value and the cost of the scheme would likely collapse, with renewable generators being left to fend for themselves in an open market.

Yet even this action, and many of the potential actions set out below, may run the risk of legal action under the Energy Charter Treaty, designed to protect energy investors from discriminatory government action. Spain has fallen foul of this treaty because of its cut to renewables subsidies but so far has paid very little of the €1.5bn awarded against it and has been ordered by the EU not to pay some of the compensation because it would be a violation of state-aid rules. **If full enforcement of the Treaty seems unlikely, the Government may well decide this is the most worthwhile and least costly route, given that any compensation it may be expected to pay would be negligible compared to the long-term burden of ROCs.**

CfDs

By 2030/31 CfDs will be costing £5.1bn per year or almost as much as ROCs. The Government estimates the budget impact of AR7 and AR7a will be about £1.1bn of the total in 2030/31.' Reform UK has already put developers on notice that they will strike down these contracts. The existing contracts from earlier rounds will need to be addressed to make a significant impact on electricity bills. Almost all of the net payments made to CfD operators have been paid to the biomass and offshore wind generators awarded contracts in the initial investment round and AR1. Some of these early windfarms are achieving strike prices over £220/MWh in 2026, compared to the weighted market price of about £74/MWh in 2025. These contracts include strong legal provisions that protect generators against unexpected changes in legislation or Government policy and addressing these contracts will require some sensitivity.

22 UK Legislation, "Climate Change Act 2008, section 10". (link)

23 UK Legislation, "Climate Change Act 2008, section 21". (link)

24 UK Legislation, "The renewables obligation order 2015". (link)

These early offshore windfarms received over £2bn in subsidy in 2025 and by 2029/30 most of these units will have received more in subsidy than it cost to build them. **This creates a political opportunity to confront the owners of these wind farms. The Government's negotiating position should threaten legislation to terminate these contracts early without compensation unless generators accept a lower strike price for the remaining contract term. In return, the Government could allow the owners of these generators to participate in a crash programme to rebuild firm power capacity.**

FiTs

FiTs mainly pay small domestic solar generators. Ending this scheme early would create legal risk and alienate potential voters so politicians may be loath to cancel payments under this scheme and might prefer to let it run off naturally. One halfway house might be to end subsidies once the initial capital costs of the installation have been repaid. A precedent for reducing the financial value of FiT payments has been made by limiting indexation to CPI instead of RPI.[25]

Cutting grid integration costs

The measures outlined above to cut renewables subsidies, coupled with the Conservative plans to abolish carbon taxes, will damage the economics of many renewable generators. **This will force these generators, particularly ROC-funded offshore wind generators, to prove whether or not they can compete in an open market to provide reliable generation**. Some will not, and so will have to withdraw from the energy market, which will automatically reduce grid balancing costs.

There is a risk that these generators would not be able to fund the cost of decommissioning their assets, so **the Government should also consider tightening the rules around funding decommissioning obligations**.[26]

The capacity market comprises a mix of one-year and fifteen-year contracts with a few in between.[27] The short duration contracts tend to be with existing generators and longer contracts to incentivise new-build, mostly batteries. **Dealing with the cost of the capacity market will require great care, because it is the capacity market that helps keep the lights on in times of grid stress. Options to reduce costs would be to stop awarding long-term contracts for new battery storage and instead favour genuinely firm dispatchable generation capacity such as gas. The cost of existing contracts could perhaps be limited by rigorous enforcement of contract terms.**

By cutting carbon taxes, eliminating ROCs, and cancelling contracts for AR7 and beyond, the amount of intermittent renewable capacity on the grid will be very much reduced. This will remove the need to expand the grid to connect these remote renewables. This means that no new contracts to expand the grid would be required.

However, a challenge would remain around existing infrastructure and part-built projects. **One initial strategy might be to threaten cancellation of any new contracts, similar to Reform's**

25 DESNZ, "Changes to inflation indexation in the Feed-in-Tariffs scheme", accessed 27 July 2026. (link)

26 DESNZ, "Decommissioning of offshore renewable energy installations", March 2019. (link)

27 Ofgem, "Final report on the operation of the capacity market in 2024/25, section 4.13", 12 September 2025. (link)

pledge to strike down AR7 contracts. Further measures could include renegotiating existing contracts to be much less generous to the grid operators. This will be a challenging task, but the poor performance of so many grid integration projects—with costs escalating and delivery far behind schedule—would give plenty of leverage to a government willing to attempt renegotiation.

Cutting other energy costs

The extra costs of CCUS, green hydrogen, and the GGL are relatively small compared to subsidy and grid integration costs. However, in the context of already having the highest industrial electricity prices in the developed world, these needless costs should not be above scrutiny.

Again, these projects are managed by contracts with the Government and outright cancellation would be problematic for the Government's reputation and investor confidence.

One approach might be for opposition politicians to record on Hansard their opposition to these projects and state clearly that, if they were to enter into government, developers will be compensated for their spend up to a particular date if they cease spending by that point. No compensation would be available for any spending beyond that date, at which point the contracts would be cancelled.

Conclusion

There is much else to be said which is beyond this paper's focus on cutting direct costs. For instance, **pursuing this paper's recommendations must come in concert with other proactive policies, such as a concerted effort to swiftly restore reliable, productive, and cost-effective dispatchable capacity to the grid.** We cannot simply cut off the existing renewables infrastructure, as flawed as it is, without replacing it. The Prosperity Institute will be producing research on this very topic later in the year.

Many years of government interventions have saddled Britain with the most expensive industrial electricity prices in the developed world. Official forecasts from NESO, the OBR, and the Government itself show the costs of subsidies, grid integration and other energy market costs are going to rise substantially over the coming years, making the problem even worse. The reality of money being wasted on commercially unviable green initiatives is clear, and much of it could be cut or begun on day one by a willing government to deliver rapid savings to tax and billpayers.

These extra costs are not sustainable and run the risk of creating an economic catastrophe. Drastic action is therefore required to roll back these hidden charges and bring electricity costs down. The Government can no longer treat energy bills as a cash cow to be milked to fund their dreams of achieving Net Zero.

The situation has become so bad that measures usually considered beyond the pale need to be countenanced. Laws need to be repealed; some contracts need to be renegotiated and others cancelled; subsidies removed and some assets left stranded. This will require political bravery and will inflict considerable pain on the current beneficiaries of state largesse. However, this pain will be tiny compared to the pain inflicted on the rest of the economy and British prosperity if such high electricity prices are allowed to endure.

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