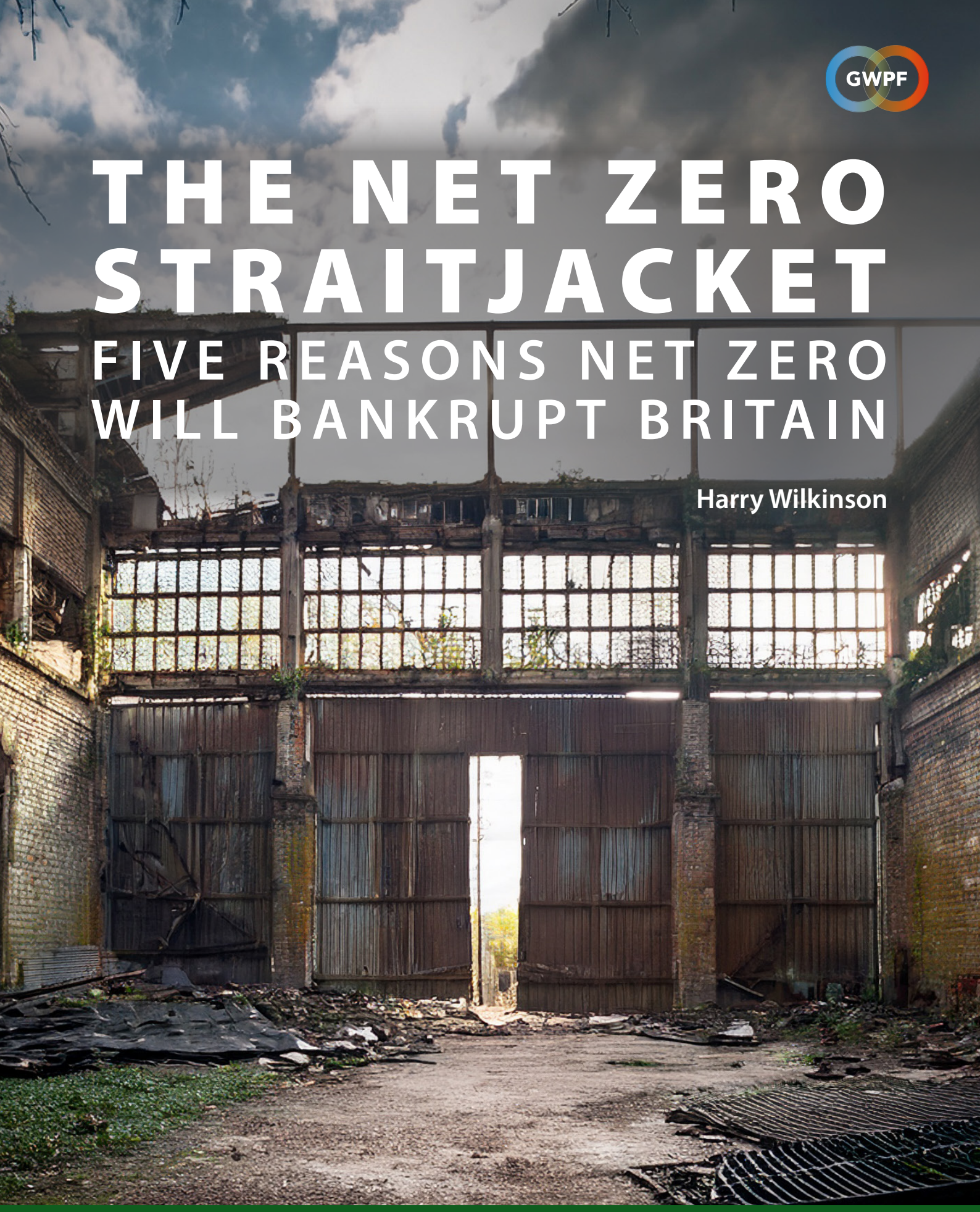

THE NET ZERO STRAITJACKET

FIVE REASONS NET ZERO WILL BANKRUPT BRITAIN

Harry Wilkinson

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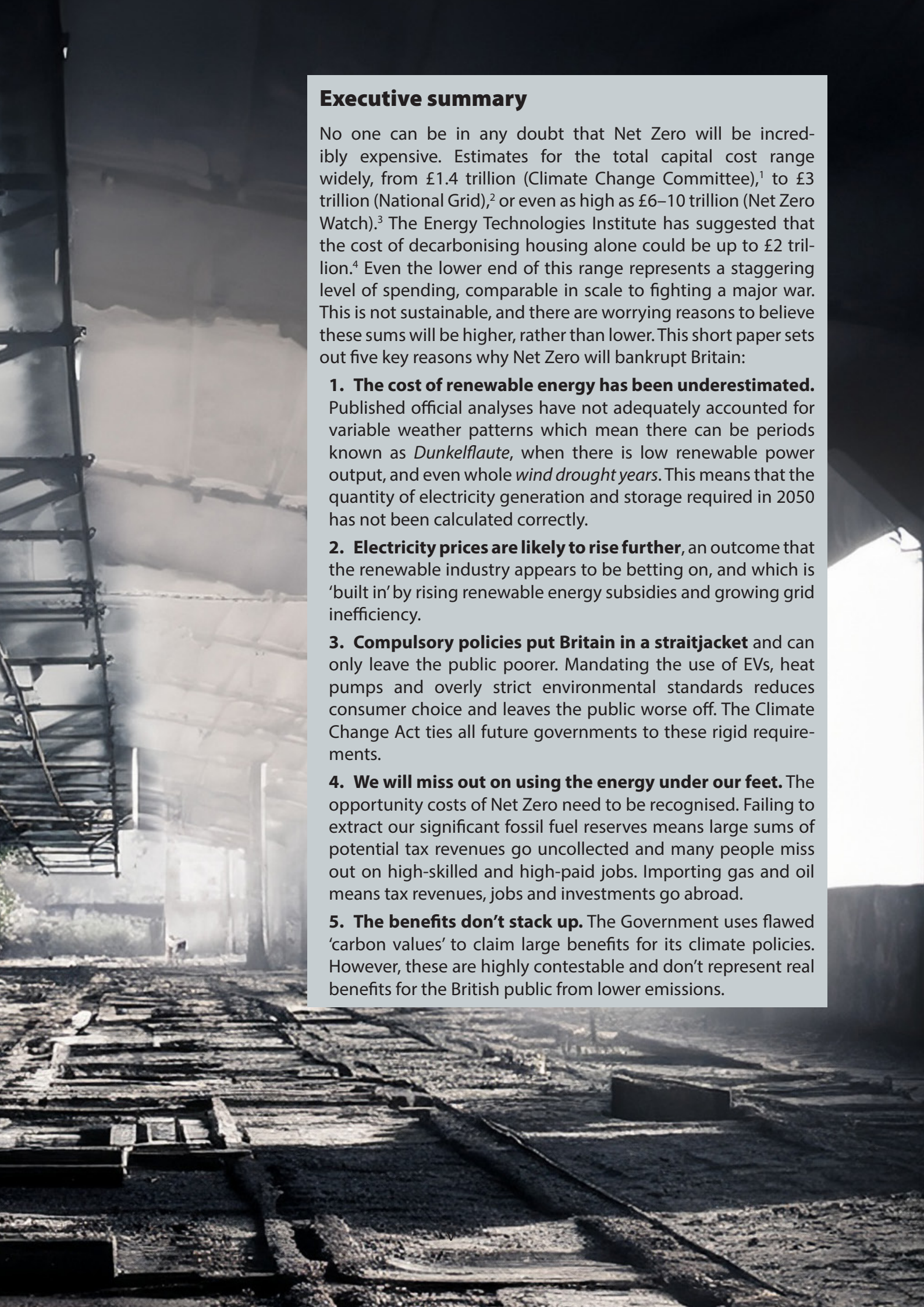
About the author

Harry Wilkinson is head of policy at the GWPF. He has worked as a parliamentary aide to Nigel Lawson and Craig Mackinlay, and appears regularly in the media to discuss energy and climate issues.



Executive summary

No one can be in any doubt that Net Zero will be incredibly expensive. Estimates for the total capital cost range widely, from £1.4 trillion (Climate Change Committee),[1] to £3 trillion (National Grid),[2] or even as high as £6–10 trillion (Net Zero Watch).[3] The Energy Technologies Institute has suggested that the cost of decarbonising housing alone could be up to £2 trillion.[4] Even the lower end of this range represents a staggering level of spending, comparable in scale to fighting a major war. This is not sustainable, and there are worrying reasons to believe these sums will be higher, rather than lower. This short paper sets out five key reasons why Net Zero will bankrupt Britain:

1. **The cost of renewable energy has been underestimated.** Published official analyses have not adequately accounted for variable weather patterns which mean there can be periods known as *Dunkelflaute*, when there is low renewable power output, and even whole *wind drought years*. This means that the quantity of electricity generation and storage required in 2050 has not been calculated correctly.

2. **Electricity prices are likely to rise further**, an outcome that the renewable industry appears to be betting on, and which is 'built in' by rising renewable energy subsidies and growing grid inefficiency.

3. **Compulsory policies put Britain in a straitjacket** and can only leave the public poorer. Mandating the use of EVs, heat pumps and overly strict environmental standards reduces consumer choice and leaves the public worse off. The Climate Change Act ties all future governments to these rigid requirements.

4. **We will miss out on using the energy under our feet.** The opportunity costs of Net Zero need to be recognised. Failing to extract our significant fossil fuel reserves means large sums of potential tax revenues go uncollected and many people miss out on high-skilled and high-paid jobs. Importing gas and oil means tax revenues, jobs and investments go abroad.

5. **The benefits don't stack up.** The Government uses flawed 'carbon values' to claim large benefits for its climate policies. However, these are highly contestable and don't represent real benefits for the British public from lower emissions.

1. The cost of renewable energy has been underestimated

Artificially low levelised cost estimates fail to account for the unreliability of wind and solar energy, but have repeatedly been used by official bodies to understate the true costs associated with Net Zero.

A House of Lords briefing paper misleadingly suggested[5] that renewable energy was cheaper than gas-fired electricity, even when considering the additional network costs of intermittency. When one strips out Government-imposed carbon costs arising from the UK Emissions Trading Scheme (UK ETS), there remains a significant cost gap between gas and wind power under different gas price forecasts (Figure 1).

Many official estimates of Net Zero costs use the Department for Energy Security and Net Zero's predictions of the simple levelised cost of renewables, rather than real-world data. Financial accounts of windfarms[6] show costs running substantially higher.

Another factor that increases the cost of meeting Net Zero is the need to respond to interannual changes in electricity supply and demand caused by weather conditions. Occasionally we experience a *Dunkelflaute*, which is a sustained period of low wind and limited sunlight. During these winter conditions, renewable energy output is very low, but demand is high. There can also be whole wind drought years, or even consecutive years, when output is significantly below average. It is these drought years which have most concerned energy experts.

To make sure a future energy system is resilient, it is essential to model weather-dependent supply and demand. Unfortunately, official estimates fail to do this.

Net Zero Watch research[3] has suggested that when accounting for weather dependent supply and demand, the main parts of Net Zero can be achieved for around £10 trillion with existing technology. If, by 2050, costs fall to the level envisaged in official estimates, the estimate is £6 trillion.

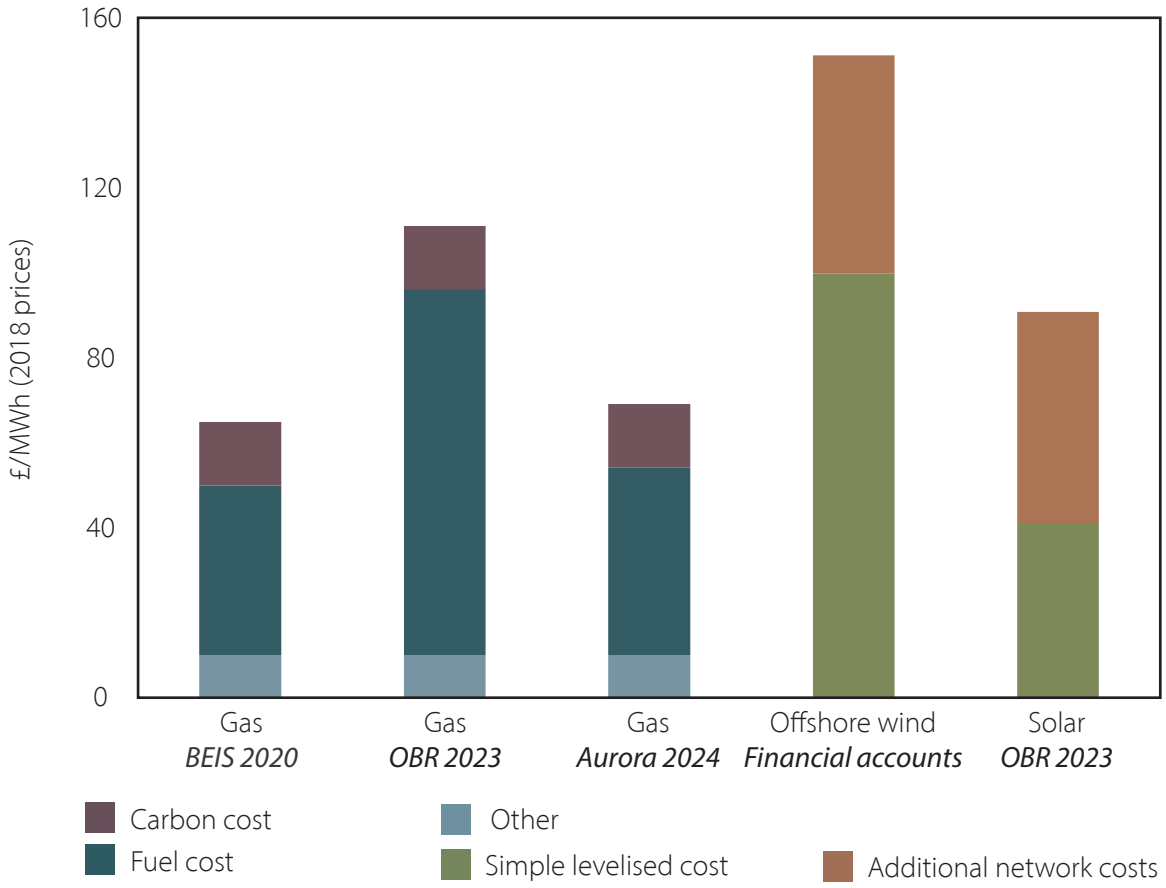


Figure 1: Enhanced levelised costs under a social cost of carbon of $51/tonne, commissioning in 2025

Sources: BEIS,[24] OBR,[25] Aurora Energy Research[26]. Gas estimates shown under different gas price assumptions.

2. Electricity prices are likely to rise further

The Government's plans ensure that bills are likely to go up, rather than fall as claimed.

New subsidies for renewable energy are locking in further price rises for consumers; they are projected to increase by approximately 20% between now and 2030, rising to £15.8 billion from £13.3 billion in the most recent financial year.[7] Combined with carbon taxes,[8] they now make up 25% of domestic electricity bills according to Ofgem data (June 2025),[9] up from 14% in 2015. For context, the entire direct wholesale cost element is 28%.[10]

These figures do not include network and balancing costs, which are rising rapidly because of Net Zero. Sources of renewable energy are often far from demand centres, which means they have to be paid to switch off to avoid overloading the grid. *Figure 2* shows how these *constraint payments* have been rising in recent years. Along with other balancing services, they now add around £25 per megawatt of renewable output,[11] and the total annual cost is expected to more than double to £4.9 billion in 2030 (£180 per household).[12]

The increasing amount of wind power on the grid means that gas-fired power stations are gradually having their economic operation undermined. Efficient combined cycle gas turbines (CCGTs) work best when used continually as baseload power. However, the proliferation of wind means they are forced to run intermittently.

They could be replaced by Open Cycle Gas Turbines (OCGTs), which are more appropriate to use as 'peaker' plants – and can step in quickly to meet any shortfalls in electricity supply. These OCGTs are significantly more expensive on a levelised cost basis, and emit more CO_2, so their use could push up prices for carbon credits in the UK ETS as well as wholesale electricity prices.

A briefing by CRU Group[13] explains the view shared by many, that wind farm developers are betting on high carbon prices pushing up electricity prices in the future, which they can exploit when their fixed price contracts (known as CfDs) expire – the only apparent way for these projects to become profitable.

Falling gas prices may provide temporary relief for consumers, as seen in the latest revision of the Price Cap. But the Government has no plan to control the spiralling Net Zero premium; any relief is likely to be shortlived.

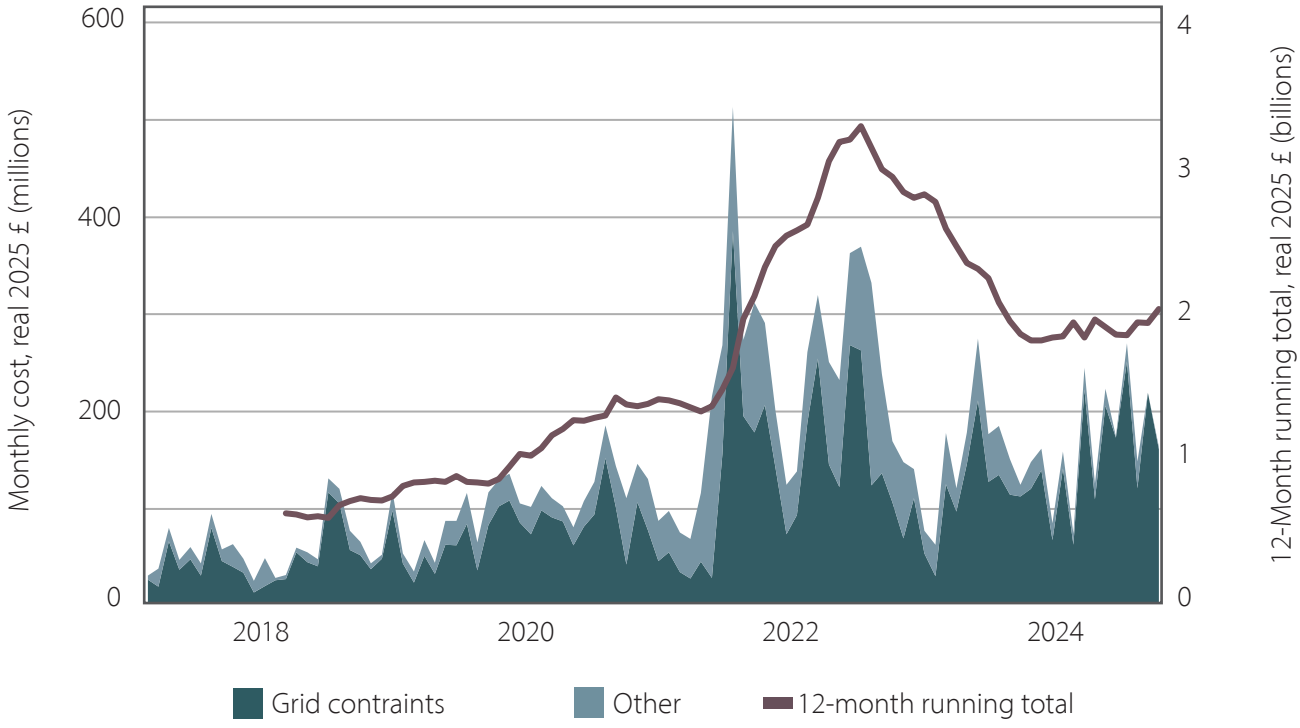


Figure 2: Cost of balancing the grid (excluding ancillary services)

Source: Ofgem.[27]

3. Compulsory policies put Britain in a straitjacket

The current Energy Secretary is a popular target of ire for Britain's Net Zero woes, but any future holder of this office is obliged to administer the strictures of the Climate Change Act.

The Act mandates the setting of five-year plans known as Carbon Budgets, which seek to plan the economy all the way to 2050.

Inevitably, these plans are based on faulty assumptions, and intellectual hubris soon collides with reality. Missing from the equation is a consideration of what the public wants.

Consumers reveal their genuine preferences in the choices they make; some people are willing to buy an electric car despite a higher purchase price, while petrol-heads would happily pay more to buy a petrol car, even if they were to become more expensive than EVs.

The brutality of the way the Government is approaching Net Zero is in forcing consumers to use certain products regardless of their preferences. The Zero Emission Vehicle (ZEV) mandate introduces compulsory targets for the use of EVs, and the Clean Heat Market Mechanism does the same for heat pumps – both leading to the eventual banning of preferred alternatives.

The significant harm imposed on the public by these forced choices is completely ignored by current estimates of the cost of Net Zero, as well as the consequences of reduced competition. These damaging policies are necessitated by Net Zero legislation, which acts as a straitjacket, leaving little room for manoeuvre.

Thus, we have the seemingly nonsensical Net Zero crackdown on fishing boats, canal barges and pleasure craft recently announced by the Labour Government.[14] For the tiniest of emission reductions, the Government is forced to risk the destruction of cherished industries and pastimes by the simple logic of the Climate Change Act, which makes it a matter of law that CO_2 emissions must be reduced.

To decarbonise the housing sector, the Goverment is imposing mandatory minimum energy performance certificates (EPCs) on privately rented homes.

A study[15] by Impact Data Metrics (IDM) has found it will cost between £6,220 and £11,120 to upgrade each home to the government's benchmark standard EPC rating of C or better. Getting the entire UK housing stock to meet the target could cost nearly £120 billion, according to these findings. This would not be enough to meet Net Zero, which would require further spending still – on even more exacting energy effiency standards and widespread heat pump adoption.

4. We will miss out on using the energy under our feet

Also missing from most major analyses of the cost of Net Zero is a realistic assessment of the opportunities forgone by our pursuit of the target.

An obvious example is the impact on our oil and gas sector. The banning of new onshore and offshore licenses threatens hundreds of thousands of jobs in the sector and dependent industries. In addition, it will reduce tax receipts (the UK raised £5 billion in taxes from the North Sea in 2023/24)[16] and raise the cost of energy imports. More than 40% of our primary energy needs are now met by imports; we spent £66 billion on gas and oil from abroad in 2024, according to ONS figures.[17] This has a significant impact on Britain's balance of payments and results in large tax revenues for foreign exchequers.

The potential of the UK's shale gas resources has also gone unexplored. A new discovery in Lincolnshire, known as the Gainsborough Trough, could add £112 billion to UK GDP, according to a study by Deloitte.[18]

Rather than growing and expanding, Britain's energy-intensive industries are on the verge of complete collapse in the face of high industrial energy prices. High-profile closures announced recently include Grangemouth oil refinery, Port Talbot and Scunthorpe steelworks and Vauxhall's van factory in Luton. Output in the chemicals sector is down 38% in just the past three years.[19]

Important infrastructure projects are also placed at risk by Net Zero. The Government has recently signalled its commitment to a third runway at Heathrow, but this decision could well

be challenged in the courts by environmental activists. Extraordinarily, the Welsh Government decided to halt all new major road-building projects[20] as part of its efforts to meet Net Zero.

Even from an emissions perspective, the drive to punish all carbon-intensive activities can be counterproductive. It often means they simply happen elsewhere. The North Sea Transition Authority has calculated that producing gas from the North Sea is four times cleaner than from LNG imports, with a carbon intensity of 21kgCO_2/boe vs 79 kgCO_2/boe.

In the US, which has not banned shale gas extraction or adopted such extreme climate policies, electricity prices have remained the same in real terms over the past 30 years. In contrast, UK electricity prices have tripled (see *Figure 3*).

Danish political scientist and climate author, Bjorn Lomborg, has calculated that if UK prices had remained as they were in 2003, we would be spending £59 billion per year less on electricity, equivalent to savings (direct and indirect) of £3,543 for a family of four.[21]

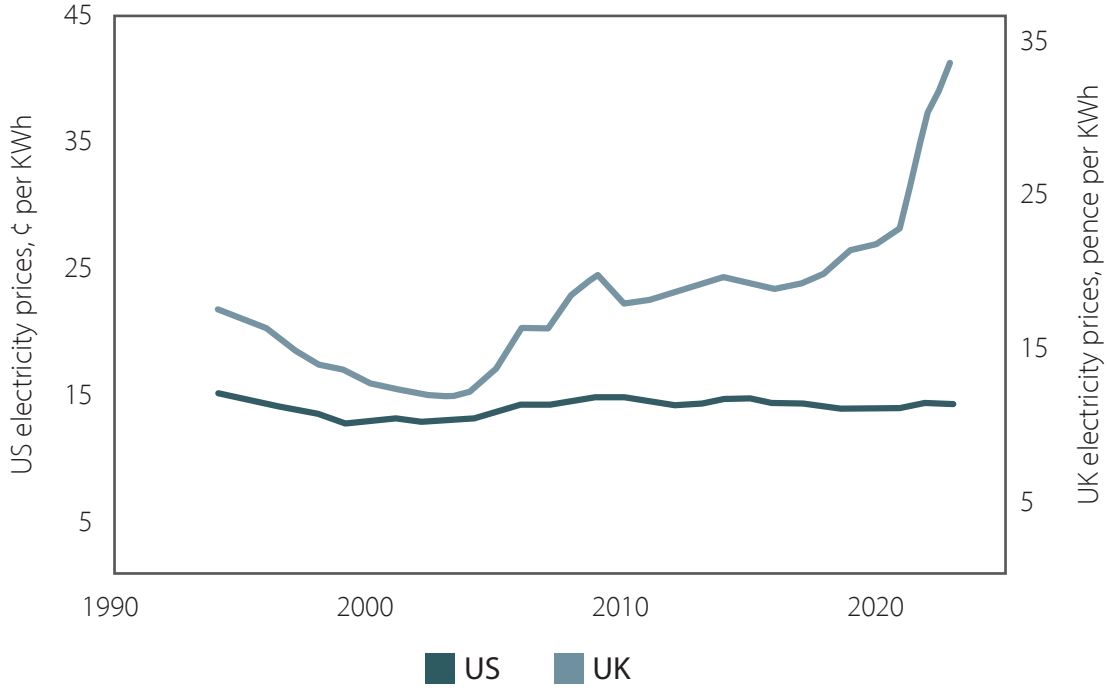


Figure 3: US vs UK electricity prices

Source: Bjorn Lomborg, data from IEA,[28] US Bureau of Labor Statistics[29] and ONS.[30]

5. The benefits don't stack up

It is true that there are externalities from the burning of fossil fuels, and their climate impact should be considered when developing energy policy. This concept is known as the Social Cost of Carbon (SCC) and the US Government's official estimate is $51/tonne, albeit it is hotly contested.[22]

Nevertheless, the UK Government uses what's known as a *target consistent* carbon values. This means raising carbon prices to a high enough level to meet Net Zero targets and justify their policies.

The latest 2023 levelised cost of electricity estimates (produced by DESNZ) now use these *target consistent* values[23] – thereby massively inflating the apparent cost of gas and encouraging decarbonisation efforts in policy appraisal. A tonne of CO_2 has been priced on this basis at £241 in 2020, rising to £378 by 2050 (in 2020 prices).

The use of these figures renders official impact assessments of energy policies entirely tautologous. Rather than attempting to work out their real benefits, the Government is arbitrarily raising them to a level needed to justify the policy of Net Zero. Properly speaking they are an estimate of the cost of decarbonisation, and not of its benefits.

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The Global Warming Policy Foundation (GWPF) is committed to providing a platform for educational research and informed debates on these important issues.

In order to make progress and advance effective policy assessments, it is essential to cultivate a culture of open debate, tolerance and learning.

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