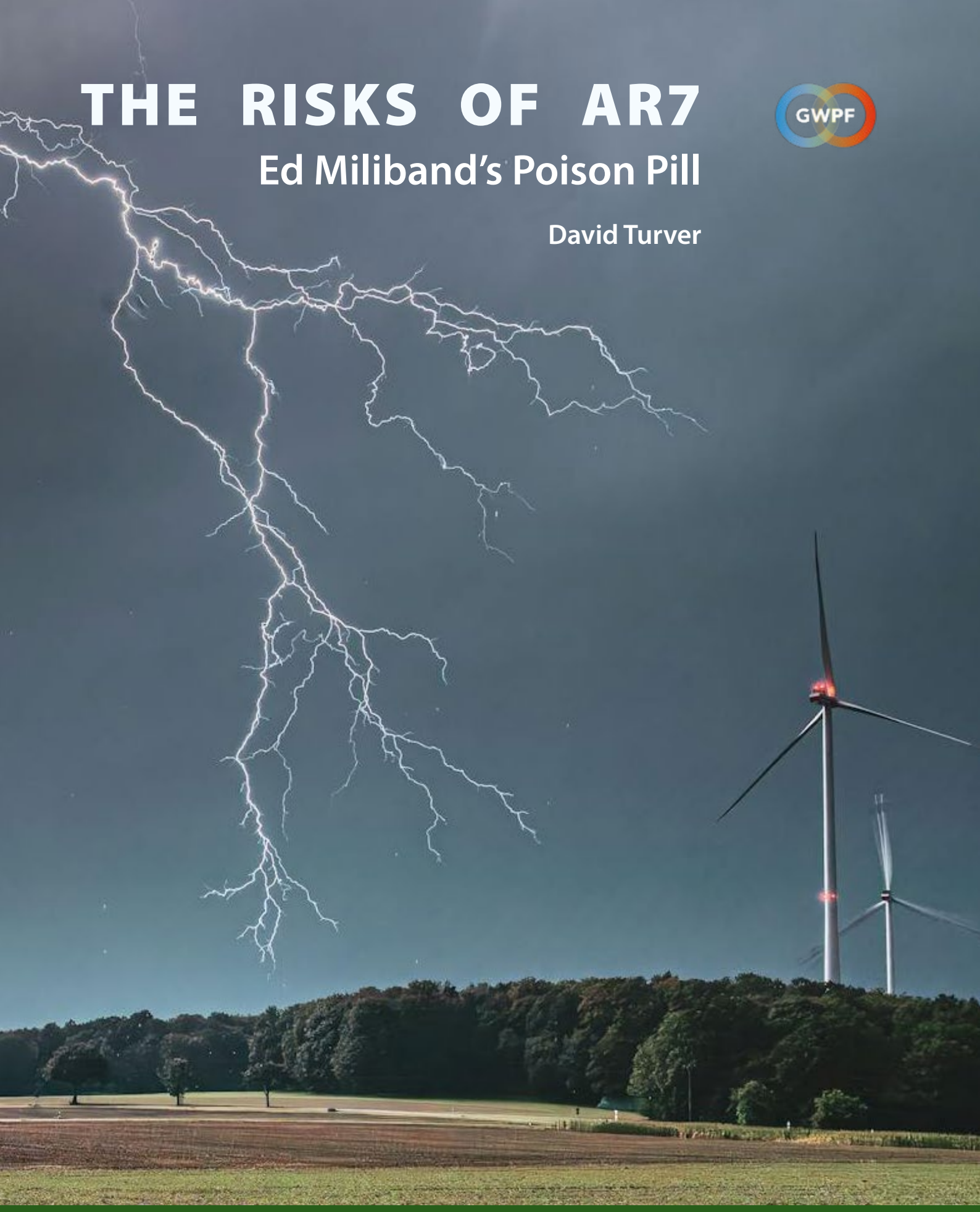
THE RISKS OF AR7

Ed Miliband's Poison Pill

David Turver



The Global Warming Policy Foundation
Note 49

The Risks of AR7: Ed Miliband's Poison Pill

David Turver

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About the author

David Turver is a retired consultant, project management professional, and engineer who writes about net zero and energy policy. He is the author of the Eigen Values Substack.

1. Executive summary

The results of the first part of this year's auction of renewables generation capacity, called Allocation Round 7 (AR7), have recently been announced. Energy Secretary Ed Miliband needed to secure lots of extra capacity if he is to meet the targets he set in his own Clean Power 2030 Action Plan (CP2030).

However, securing these projects has required offering significantly higher prices than last year and extending the length of subsidy contracts from 15 to 20 years. These new contracts are expected to **add the equivalent of £79 per household to annual electricity bills.**

Additional costs will arise on top of this, adding to the ongoing and increasing expense of integrating new intermittent renewable generation into the grid. **By 2031, grid balancing and backup costs are expected to add the equivalent of around £400 per household to annual economy-wide electricity costs**, with a further £134 per household required to fund the expansion of the grid needed to connect remote renewable projects.

These costs are faced directly by the public through higher domestic energy bills, and indirectly as businesses pass on increased electricity costs in the form of higher prices and lower levels of employment.

The risk of blackouts is rising as our firm power capacity falls over the next few years. Most of the existing nuclear fleet will be retired by 2030 and and it will be a struggle to keep ageing gas plants operational. Meanwhile, there is an eight-year lead-time on new gas-fired generators, making it difficult to take corrective action quickly.

In effect AR7 and his broader CP2030 plan are Miliband's Net Zero poison pill, locking in higher electricity prices and a less secure grid for decades to come.

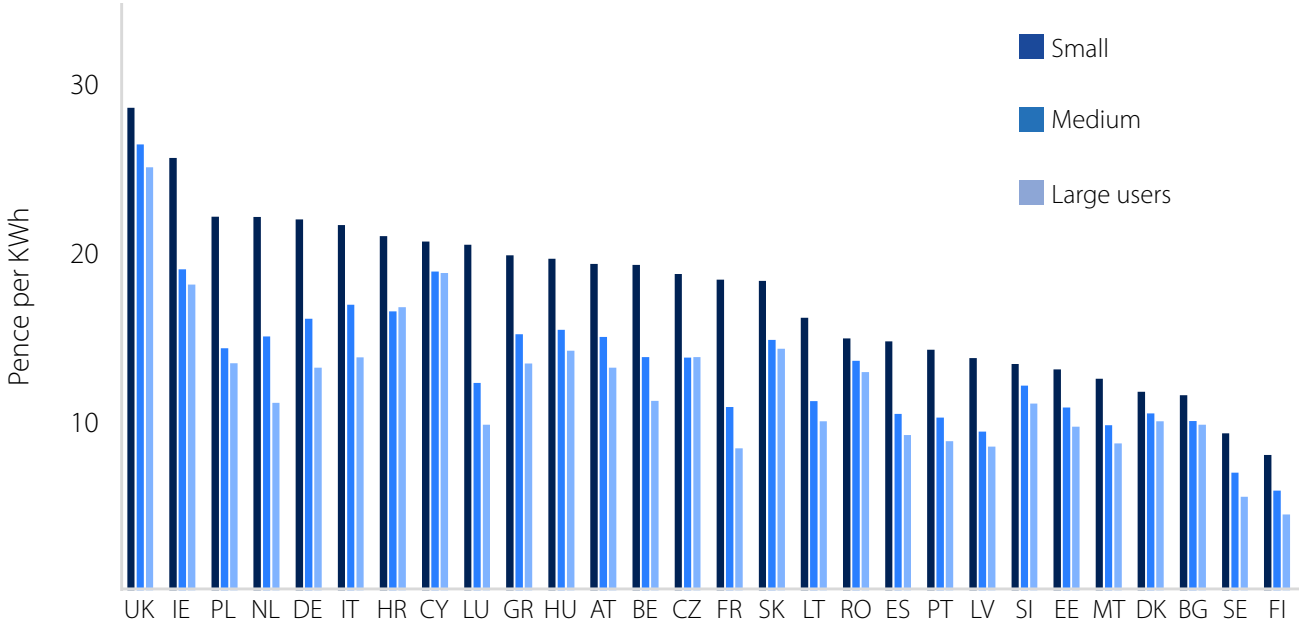
2. High electricity prices in context

The Department of Energy Security and Net Zero (DESNZ) publishes data comparing international energy prices. There are two datasets, one from the International Energy Agency (IEA) that compares prices across member states each year and the second comparing UK and EU energy prices biannually.

The IEA figures for 2024[1] showed the UK has the highest industrial electricity prices and the second highest domestic electricity prices. The latest figures for the UK/EU have recently been published for the first half of 2025 and again we have the highest non-domestic electricity[2] prices and the second or third highest domestic prices[3], depending on whether one compares small, medium or large users (see Figure 1 below).

Clearly, there is already a very significant problem of high electricity prices, so any action to further increase prices would be disastrous.

a) Non-domestic, including taxes and subsidies



b) Domestic, including taxes and subsidies

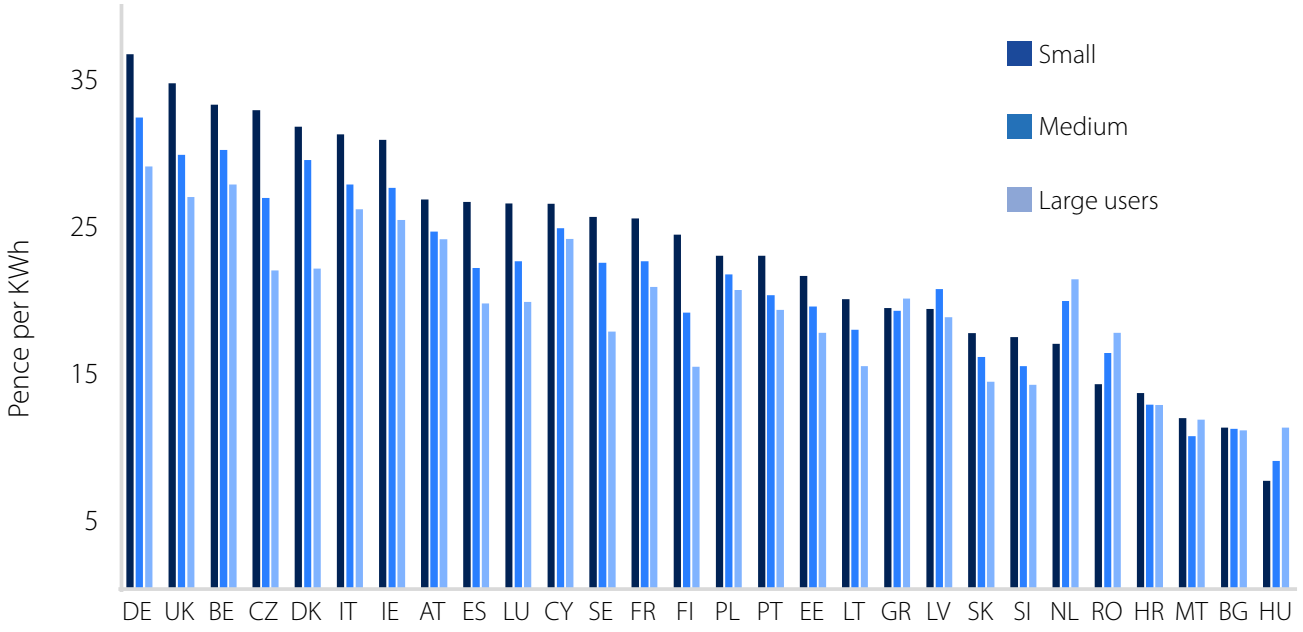


Figure 1: Electricity prices in the EU 27 plus UK (1H, 2025)

Source: DESNZ, International Energy Agency.

3. The subsidy gravy train

The main reason we have such high electricity prices is because of the subsidies we pay for renewables plus the extra costs incurred to integrate intermittent power sources into the grid. Renewables are subsidised by three subsidy schemes: Renewable Obligation Certificates (ROCs), Contracts for Difference (CfDs) and Feed-in-Tariffs (FiTs).

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[4] reported the RO scheme cost £7.8bn in 2024–25 and the cost is forecast to rise to £8.4bn in 2026–27 before falling back as subsidies for older schemes expire and the Drax tree-burning plant is moved to a CfD contract.

Feed-in-Tariffs (FiT) 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, but analysis of Ofgem's latest report into the FiT scheme[5] shows it cost nearly £1.8bn in 2024–25, or around £229/MWh, which is nearly three times the current market rates of about £80/MWh. We might expect the cost of the FiT scheme to continue to rise in line with inflation.

Finally, there is the Contracts for Difference (CfD) scheme 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 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. Analysis of data published by the Low Carbon Contract Company[6] shows the CfD scheme cost a record £2.6bn in subsidies during calendar year 2025. The OBR forecasts the cost of this scheme will rise to £4.6bn by 2030/31. This estimate does not include the cost of AR7, which, as we shall see below, is likely to add further costs to the CfD scheme.

In summary, the total cost of these subsidy schemes amounts to over £12bn per year, per Figure 2.

Item	Annual Cost (£bn)
Renewables Obligation (ROCs)	7.8
Contracts for Difference (CfDs)	2.6
Feed in Tariffs (FiTs)	1.8
Total	12.2

Figure 2: Summary of subsidy costs in 2024/25.
Source: OBR, LCCC and Ofgem.

4. What is AR7?

Each year the government runs an auction for new renewable generation capacity. Allocation Round 4 (AR4) gained notoriety in 2022 when new offshore wind capacity was awarded contracts at around £37.35/MWh (2012 prices), leading to claims that renewables were nine-times cheaper than gas.[7] Those prices now equate to around £49/MWh in 2025 money. However, all those projects have now either been cancelled (Norfolk Boreas) or partially re-bid at higher prices, for example, Hornsea 3. Despite higher prices being on offer, no contracts were awarded in AR5 in 2023. 2024's AR6 saw the massive Hornsea 4 project awarded a

contract at £85/MWh (2025 prices) but that has been cancelled as uneconomic.[8] This year's AR7 is the seventh allocation round of renewables capacity and the auction has been split into two components: AR7, covering offshore technologies, and AR7a covering other technologies.

DESNZ has published a full list[9] of the prices on offer in this auction, but for the purposes of this paper we shall focus on the main technologies: fixed and floating offshore wind, onshore wind and solar, see Figure 3 below.

The way CfD prices are quoted is somewhat confusing. Up until this year, they were always quoted in 2012 prices, so if you wanted to convert into today's money you had to multiply the prices by an inflation adjustment. This year, prices are quoted in 2024 prices and now need a different inflation adjustment to convert into 2025 prices. All the prices quoted above are in September 2025 prices.

The contract award price for fixed-bottom offshore wind has gone up 11.3% to £95/MWh

Technology	AR6 Offer (2025 Prices)	AR6 Awards (2025 Prices)	AR7 Offer (2025 Prices)	AR7 Award (2025 Prices)	AR6 Offer to AR7 Offer Increase (%)	AR6 Award to AR7 Award Increase (%)
Fixed Offshore Wind	106	85	118	95	10.8%	11.3%
Floating Offshore Wind	255	202	282	225	10.6%	11.5%
Onshore Wind	93	73	96	N/A	3.4%	N/A
Solar	88	72	78	N/A	-11.8%	N/A

Figure 3: Summary of AR6 and AR7 award and offer prices (£2025 per MWh).
Source: DESNZ.

compared to the £85/MWh AR6 price (both in 2025 prices). It is worth noting that in their impact analysis[10] for extending the contract length to 20 years, DESNZ estimated that would result in a 12% reduction in strike prices for fixed-bottom offshore wind. On a like-for-like basis, the AR7 offer price is more like £107/MWh.

The £225/MWh award prices for floating offshore wind in AR7 are up 11.5% compared to the £202/MWh awarded in AR6. Again, the like-for-like price would be significantly higher. Onshore wind prices on offer in AR7 are up a more modest 3.4% at £96/MWh, but still up nearly a third on the AR6 contract awards around £73/MWh. The £78/MWh on offer in AR7 for solar power is down nearly 12% on the £88/MWh offer price in AR6, but up 8.4% on the AR6 contract awards around £72/MWh.

These prices compare unfavourably to the cost of gas-fired generation, unencumbered by carbon costs, see Figure 4.

According to Ember, the fuel cost of gas-fired electricity was just £52.46/MWh in November 2025, much lower than all the prices on offer in AR7. Even if carbon costs of £27.95/MWh are added, the full cost of £81/MWh are only just higher than the price on offer for solar power. As we shall see below, the subsidy costs for solar are just a small part of the overall cost.

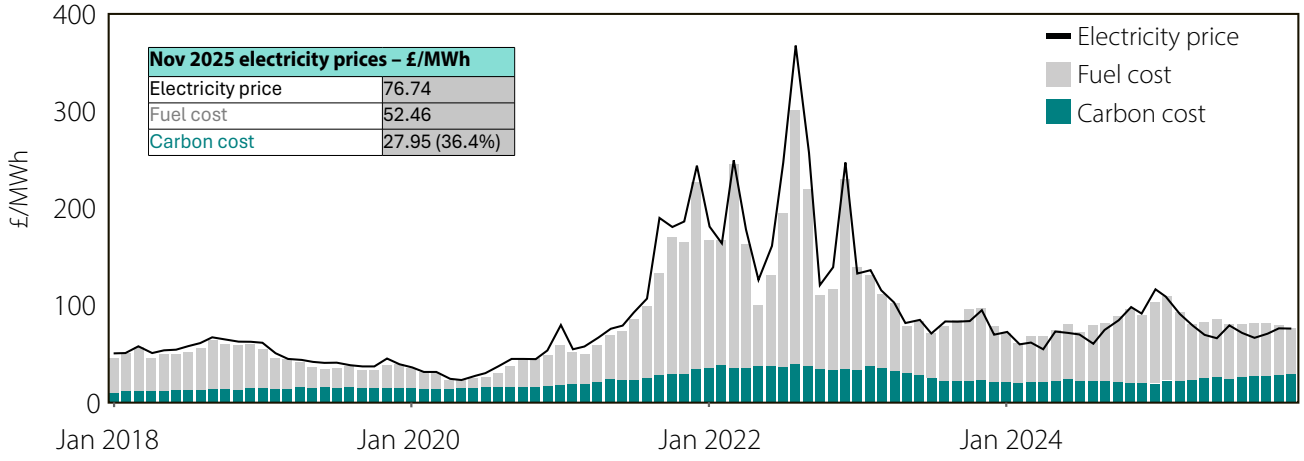


Figure 4: Impact of gas and carbon costs on monthly wholesale electricity prices.
Source: Ember, ENTSOE, EMR.

5. AR7 timeline

This year, the allocation round has been split into two components. AR7 covers offshore technologies and AR7a covers everything else. The timeline for the auction was revised on 16 October 2025[11] and now the timeline for each leg is different.

The Contract Budget Notice for AR7[12] was published on 27 October 2025 and the sealed bid window was supposed to take place between 11 and 17 November. The AR7 results announcement was made on 14 January 2026.[13]

AR7a's budget notice was published on 8 December 2025.[14] The sealed bid window was open between 5 and 9 January 2026 with results expected between 6 and 9 February 2026.

6. AR7 impact on bills

The AR7 results already imply a siginficant impact on bills; a picture that will become clearer with the AR7a results. The budget notices give us a good indication of what is to come. The government set a budget for offshore technologies in AR7 of £1,080m per year, split £900m for conventional fixed-bottom and £180m for floating offshore wind. However, the results announcement almost doubled the budget to £1.78bn, as shown in Figure 5.

	2028/29	2029/30	2030/31	2031/32	2032/33
Pot 3	£118,741,970.78	£500,051,058.40	£713,482,432.47	£1,386,258,846.29	£1,783,922,266.72

	2028/29	2029/30	2030/31	2031/32
Pot 4	-	£245,484.55	£112,894,888.85	£133,055,961.51

Figure 5: Increased AR7 CfD budget for offshore wind (£m in 2024 prices).
Source: NESO..

In effect, the government expects fixed-bottom offshore wind to add £1,784m to bills and floating offshore wind to add another £133m.

However, there is reason to believe the budget may be an over-estimate of the direct impact on bills, because DESNZ assume the reference price for offshore wind to fall to just over £33/MWh in 2030/31. The reference price is the expected market value of their output, so they expect windfarms to receive nearly £58/MWh in subsidy to top up to the strike price of £91/MWh (in 2024 prices). The assumed reference price compares to the roughly £64/MWh reference price achieved by offshore wind so far in 2025/26. If market rates do not fall as much as predicted by 2030/31, the impact on bills will be correspondingly lower.

The government has set a budget for onshore technologies in AR7a of £310m per year, split £295m for solar, onshore and remote island wind and some other minor technologies, and £15m for other technologies such as geothermal and tidal stream, as shown in Figure 6.

They have set a minimum budget of £160m for onshore wind and a maximum budget of £295m for solar. However, solar can only consume £135m if the minimum onshore wind total is £160m. Working through the arithmetic, £160m will buy 0.9GW of onshore wind at the administrative strike price and the remaining £135m will buy about 3.5GW of solar capacity, assuming no other technologies win contracts in Pot 1. Again, more capacity may be procured if the bids come in lower than the offer price.

This means the government expects AR7a to have an annual impact of around £310m, although again, this is based on reference prices that look too low. In summary, the total impact of AR7 and AR7a is expected to be around £2,227m. The full burden of these costs will not fall on households, but everyone will feel the effect. This total budget figure amounts to the equivalent of £79 per household. This is the first part of Ed Miliband's Net Zero poison pill.

	2027/28	2028/29	2029/30	2030/31	2031/32
Overall Budget (£ million in 2024 prices)	295	310	310	310	15
Pot 1	295	295	295	295	-
Pot 2	-	15	15	15	15

Figure 6: AR7a CfD budget for onshore technologies.
(£m in 2024 prices)
Data: DESNZ.

7. Additional costs of renewables

Adding another £2.2bn to our bills by 2032 through extra CfDs would be bad enough, but the second part of the poison pill is the extra costs we incur to integrate intermittent renewables into the grid. First, because wind and solar output fluctuate significantly, sometimes they produce less than expected. The grid needs to be always balanced so we pay gas generators to fire up to compensate. At other times renewables can produce more than total demand, or more than the grid can handle, and we pay wind farms to curtail their output. The National Energy System Operator (NESO) produces Monthly Balancing Services Summary reports. The data for 2024/25[15] shows the cost of this service was £2.7bn. In addition, we pay for backup through the capacity market, the OBR shows this cost the UK £1.3bn in 2024/25.

If we attribute these costs to intermittent renewables (allowing an inflation adjusted £750m for the cost of balancing before renewables), we can see the full cost of existing renewables and new capacity through AR7 (all in 2025 prices), see Figure 7.

The cost of grid balancing adds about £20/MWh to the cost of intermittent renewables and backup from the capacity market about £13/MWh, together adding £33/MWh. The full cost of active CfDs for offshore wind rises to £188/MWh, onshore wind £150/MWh and solar £103/MWh, all much more expensive than gas, even with a carbon tax added. The full cost of

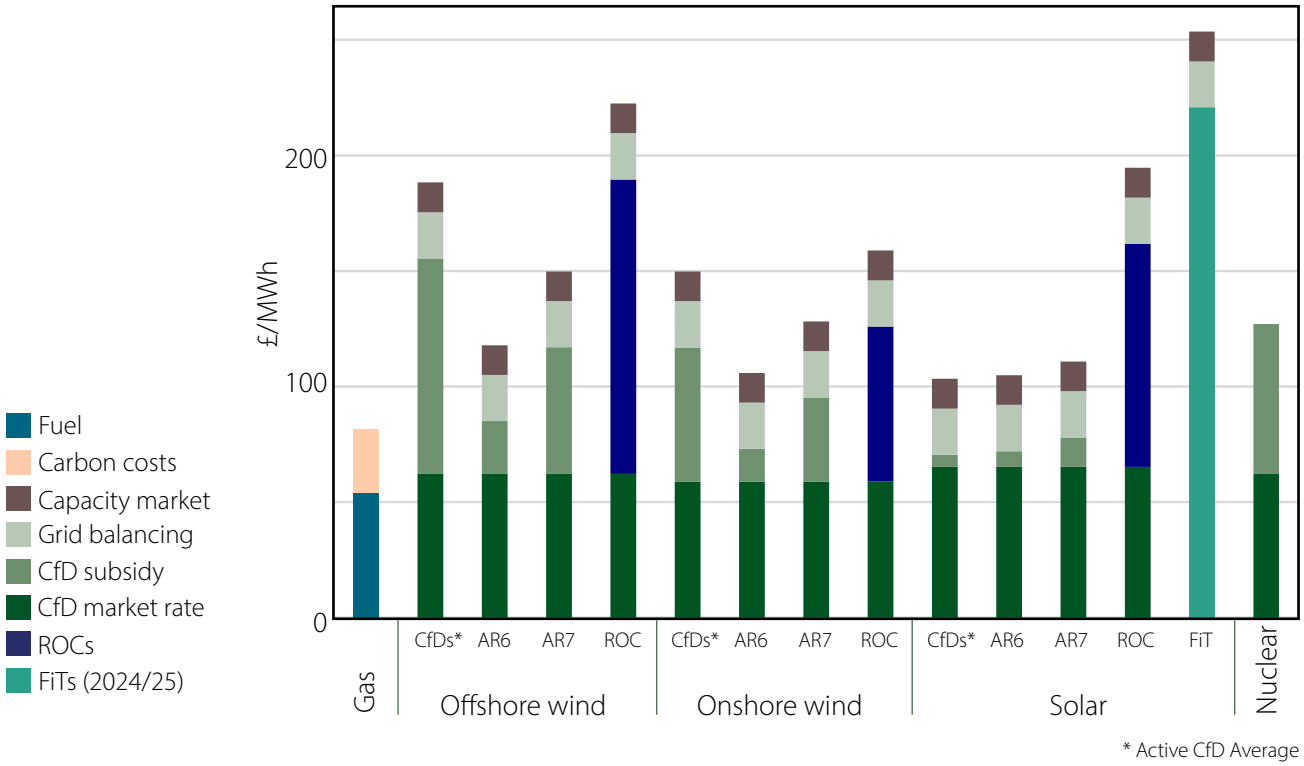


Figure 7: Total cost of electricity by technology and subsidy scheme.
(£2025 prices)
Data: NESO, OBR, DESNZ.

new capacity in AR7 is also much higher than gas power, about £127/MWh for offshore wind, £129/MWh for onshore wind and £111/MWh for solar.

These extra costs will only get worse. NESO forecasts[16] balancing costs to rise to £6.4bn–£8.3bn by 2030 and OBR forecasts[17] Capacity Market costs to rise to £4.4bn per year in 2030/31. We can therefore expect these extra costs of renewables to roughly triple to £11bn–£13bn per year by 2031, or the equivalent of more than £400 per household.

8. Extra spending on the grid

The final toxic part of Net Zero in general and AR7 in particular is the extra spending required on the grid. Intermittent renewables are geographically dispersed and need hundreds of miles of extra transmission lines to connect them to the grid. Ofgem has recently made two announcements for extra spending on the grid. In July, it approved[18] an initial £8.9bn of spending on the high-voltage electricity network. This was described as the first step of an £80bn programme to boost network capacity, estimated to add a further £74 to annual electricity bills. In December 2025 they announced[19] a further £10.3bn of spending on the electricity grid, which they said will add another £60 to electricity bills, although some of these costs should be offset by reductions in curtailment charges.

9. Additional risks

The focus on renewables for the past couple of decades has meant little attention has been paid to firm power capacity. Most of the remaining nuclear fleet is operating beyond its original design life. Hartlepool and Heysham 1 power plants are due to close[20] in March 2028. The remaining Heysham 2 and Torness plants are due to close in 2030, leaving just Sizewell B operating until Hinkley Point C comes online, hopefully in 2030 or 2031. This leaves us perilously short of baseload power, especially as the new subsidy agreement for the Drax tree-burning plant limits its operational hours.[21]

In addition, our gas fleet is ageing and of course the last coal power plant was turned off in 2024. The typical operational life for a gas

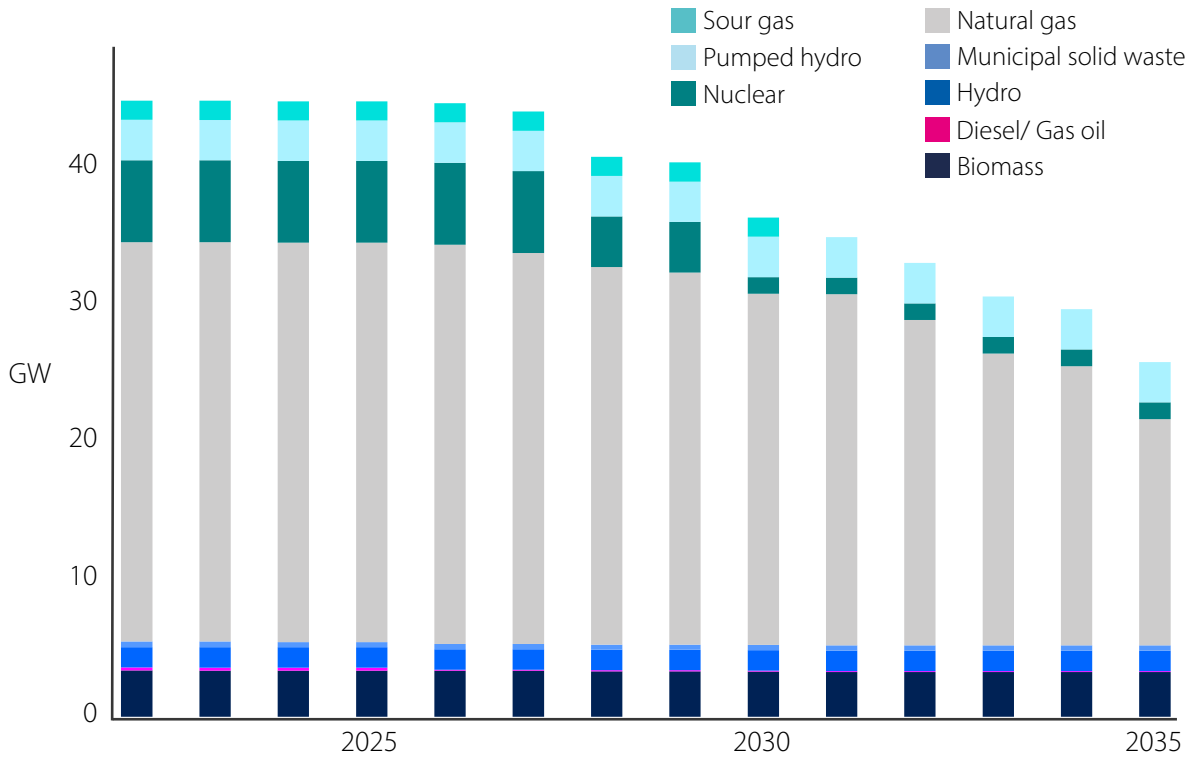


Figure 8: Dwindling firm power capacity.

Assuming a 35-year plant life for gas capacity. Data: Digest of UK Energy Statistics (DUKES).

plant is 25–30 years. With careful maintenance, this could possibly be extended up to 40 years. However, intermittent operation can reduce component life again. Using plant data from the Digest of UK Energy Statistics (DUKES)[22] and assuming a 35-year life for our gas fleet, we can see in Figure 8 that firm power capacity starts to fall in 2028 and by 2035 is down to just 25.5GW (or 28.8GW if Hinkley Point C is online by then).

Kathryn Porter[23] has described just how close we came to blackouts in January 2025, so increasing intermittent renewables capacity as our firm power capacity dwindles adds even more risk to an already difficult situation. The current eight-year lead time[24] on new gas-fired power plants exacerbates this problem.

Interconnectors to several European countries can partially mitigate the risk of less home-grown firm power. However, these lines are subject to failure and need to be maintained, so cannot necessarily be relied on when they are most needed. Moreover, Norway's government fell[25] partly because of concerns about interconnectors and unease about their impact on Norwegian prices.[26] Sweden cancelled[27] an interconnector with Germany due to concerns about rising wholesale prices and Denmark is concerned[28] it is not receiving "cheap" offshore wind at times of high generation. Clearly, relying upon interconnectors is subject to significant political risk.

10. Conclusions

Britain already has the highest industrial electricity prices in the developed world. We might hope this would act as a strong incentive for politicians to change policy, but Ed Miliband is pressing on regardless.

Even if we just count the basic cost of new capacity in AR7, it is clear that most of the power generated will cost more than gas-fired electricity, so we can expect our bills to rise. This rise will cost the economy the annual equivalent of £79 per household for the new AR7 CfDs, over £400 per household to meet grid balancing and backup costs, and an extra £134 for grid expansion.

In addition, the lack of focus on firm power is creating the additional risk of blackouts. Ed Miliband's mad dash for renewables in AR7 is truly a poison pill that will leave us with even higher energy prices and unreliable power at a critical juncture.

Notes

1. Covered here: https://davidturver.substack.com/p/uk-industrial-electricity-prices-highest
2. QEP 5.4.1-5.4.4: https://www.gov.uk/government/statistical-data-sets/international-industrial-energy-prices
3. QEP 5.6.1-5.6.3: https://www.gov.uk/government/statistical-data-sets/international-domestic-energy-prices
4. OBR November Outlook detailed forecast receipts (Tab 3.8): https://obr.uk/efo/economic-and-fiscal-outlook-november-2025/
5. Ofgem FiT Report 2023/24: https://www.ofgem.gov.uk/publications/feed-tariffs-annual-report-scheme-year-14-april-2023-march-2024
6. Low Carbon Contract Company: https://dp.lowcarboncontracts.uk/dataset/actual-cfd-generation-and-avoided-ghg-emissions
7. Carbon Brief headline: https://www.carbonbrief.org/analysis-record-low-price-for-uk-offshore-wind-is-four-times-cheaper-than-gas/
8. Orsted announcement: https://orsted.com/en/company-announcement-list/2025/05/orsted-to-discontinue-the-hornsea-4-offshore-wind--143901911
9. DESNZ AR7 Pot and Price Notice: https://assets.publishing.service.gov.uk/media/6881ea7c901d5f8d4712057e/cfd-ar7-pot-and-price-notice.pdf
10. Final stage impact assessment: https://assets.publishing.service.gov.uk/media/68764f1a55c4bd0544dcaeab/cfd-ar7-final-impact-assessment.pdf
11. AR7 Timeline: https://www.cfdallocationround.uk/ar7-timeline
12. AR7 Contract Budget Notice: https://assets.publishing.service.gov.uk/media/68ff773ea50917eae8b48371/cfd-ar7-contract-budget-notice.pdf
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16. NESO Annual Balancing Cost Report June 2025 p31: https://www.neso.energy/document/362561/download
17. OBR November Outlook detailed forecast receipts (Tab 3.8): https://obr.uk/efo/economic-and-fiscal-outlook-november-2025/
18. Ofgem Press Release 1 July 2025: https://www.ofgem.gov.uk/press-release/ofgem-approves-initial-ps24-billion-operate-and-maintain-critical-gas-networks-and-upgrade-britains-electricity-supergrid
19. Ofgem Press Release 4 December 2025: https://www.ofgem.gov.uk/press-release/ofgem-unlocks-ps28-billion-investment-maintain-safe-secure-and-resilient-energy-grid-and-upgrade-and-expand-capacity-meet-growing-demands
20. Power Magazine: https://www.powermag.com/two-more-uk-agr-nuclear-plants-get-further-lifetime-extensions/
21. Michael Shanks MP statement to Parliament: https://questions-statements.parliament.uk/written-statements/detail/2025-02-10/hcws424
22. DUKES Table 5.11: https://www.gov.uk/government/statistics/electricity-chapter-5-digest-of-united-kingdom-energy-statistics-dukes
23. Watt Logic blog: https://watt-logic.com/2025/01/09/blackouts-near-miss-in-tighest-day-in-gb-electricity-market-since-2011/
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People are naturally concerned about the environment, and want to see policies that enhance human wellbeing and protect the environment; policies that don't hurt, but help.

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