Power for the people

How public control could lower energy bills

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Executive summary

Energy prices have dominated political and economic debate for the best part of half a decade. Despite the political capital that has been expended in attempt to lower bills for consumers and businesses, prices remain stubbornly high and dissatisfaction with the energy system continues to simmer.

The Labour government was elected on a manifesto commitment to pursue Clean Power, and this remains the right objective for our energy system. But this paper argues that while cleaner power could be cheap power, this is dependent on the structure of the energy system itself. This is where the new Prime Minister's emphasis on 'public control' could make the difference. We argue that there are ways of exerting this control, specifically in relation to energy generation and storage, that would have a meaningful impact on costs for end users.

This is not a quick fix, nor a cheap one. But we argue that there are no free lunches when it comes to energy policy. Any strategy we pursue, including the status quo, has significant costs that must be borne by someone. The solutions we advocate do involve a larger role for the public sector, working through institutions such as Great British Energy and the National Wealth Fund, but we argue they are feasible even given the difficult fiscal position of the government.

This paper argues for action in three main areas:

Firstly, we argue that it will be impossible to bear down on prices without more public control over dispatchable power. In the short term we argue this should mean bringing the remaining gas generators under public control. This would limit the ability for extortionate gas costs to set bills and facilitate a cost-effective transition away from gas. In the medium and longer term, there should be a greater role for the public sector in building new forms of dispatchable power, including hydrogen, given the support that will be needed to retrofit existing infrastructure.

Secondly, we argue that a new approach to storage is needed. Currently we are not seeing the benefits of building out storage capacity, partly due to scale but also because the ownership model involves absorbing excess power and selling it back to the grid at peak price. We argue that a strategic public intervention in storage is both necessary and affordable. If the public sector took responsibility for storage build out, it would maximise the role that storage can play in dampening energy prices in the medium and longer term.

Finally, we argue that the roll-out of new clean power infrastructure, particularly renewables and nuclear, needs more coordination in order to minimise costs. Great British Energy and Great British Energy Nuclear should be explicitly tasked with ensuring that energy delivery plans are met, including by directly building out projects that are not attracting enough or private investors. Relying on private investment has led to a piecemeal approach to delivery which has incurred additional costs elsewhere in the system.

Overall, this is a policy package that would enable a cost-effective clean energy transition to proceed in good time. We do believe that the private sector and private investment have important roles in the energy system, and knee-jerk calls for nationalisation are misplaced. Instead, we need a more strategic approach, focusing public control and public resources where they can make the biggest difference.

Introduction

It is now well understood that the cost of electricity in the UK is very high, both historically but also relative to other countries. What is not understood or agreed upon is the set of interventions required to structurally reduce prices over the medium to long term. Government action to reduce bills has centred on reducing end-user costs: moving consumer levies to general taxation and subsidising electricity bills for energy-intensive manufacturing. These measures will provide temporary respite, but they deal with the symptom rather than the underlying cause.

The high cost of UK electricity does not have a single cause. There are many stages from power being generated to it reaching the end-user, and because the power system is no longer vertically integrated each of these stages are manged by different companies. Therefore, rather than the electricity network being planned to work efficiently as a whole system, separate companies deliver the specific stage of power delivery they are responsible for in the way which makes most commercial sense for them. This creates various inefficiencies.

To address this, the electricity network has been encased in a thicket of regulation and bureaucracy, with various rules, targets, charges and payment incentives implemented, all with the supposed intention of attempting to get operators to act in the interest of the system at large and the end-user. It is now clear, however, that the thicket of regulation and bureaucracy—presided over by Ofgem, the regulator of electricity 'markets'—has not had the desired effect.[1] In fact, bills have consistently ratcheted up over recent decades, even while investment in the network was at historic lows. Now the sector is starting to get serious about transitioning to clean power, bills are rising further to fund the necessary investment.[2]

Inefficiency and incoherence plague the whole system, and it is possible to identify issues from across the different stages of power delivery—from generation, to transmission, to distribution, to retail supply—which contribute to high end-user costs. However, this briefing is focussed on generation in particular, or generation and storage, to be precise. Wholesale costs make up the largest share of end-user bills (39%), and there is no route to significantly reducing bills that does not involve addressing wholesale

1 'Ofgem' is an acronym for: The Office of Gas and Electricity Markets. However, the UK government describes Ofgem's key responsibilities as regulating "the monopoly companies which run the gas and electricity networks" and taking decisions on "price controls", activities which are typically not necessary for any vaguely functioning market. See UK Government, 'Ofgem', accessed 6 August 2026.

2 BBC News, 'Energy grid investment of £28bn to push up household bills', 4 December 2025.

costs.[3] To reduce these costs we need to change how we plan, finance, build and operate generation assets.

The Prime Minister Andy Burnham has made constant references to the need for 'public control' of key utilities such as energy, and this phrase is useful with respect to understanding the current problem with electricity generation.

Fundamentally, insufficient public control of generation assets is the root cause of high electricity prices, and greater levels of public control are necessary to open up the possibility of reducing prices while we simultaneously invest to decarbonise. We need generation assets to be built out in a more strategic way if we are to fully decarbonise while maintaining security of supply, and we need those assets to be operated in the public interest if costs are to be contained for end-users. As this briefing sets out, continuing to rely on private investors building, owning and operating virtually all generation assets will mean that the transition to clean power will either be too slow, too expensive, or both.

Some have an issue with the ambiguity of the phrase 'public control', but ambiguity can be helpful. By targeting public control, we are targeting an end, rather than specifying a means. This is the right way round: we should target the end-state desired, then examine the means through which we can reach that end-state as quickly and effectively as possible.

This briefing outlines several issues with how we are currently plan, finance and operate generation assets, proposing three broad solutions. The three solutions are comprised of public interventions of differing scope and scale. They are our suggested means for achieving the end goal of regaining public control over electricity generation in the most efficient way possible.

Greater public control, in turn, opens up the possibility of lower prices for end-users. We must remain open and flexible about how that objective will be achieved as circumstances evolve, but we suggest that something like what we are proposing is going to be necessary if we are to decarbonise our power supply in an affordable way.

3 Kaylen Camacho McCluskey, Will Blyth, Rob Gross, Richard Carmichael, 'The Price of Power: Wholesale Market Price Formation, Policy Costs and Domestic Electricity Bills in Britain', UKERC Discussion Paper, November 2025.

The problem:
Clean can be cheap, but is not *necessarily* cheap

Upon returning to office as energy secretary in 2024, Ed Miliband, set the mission of decarbonising the UK's power supply by 2030 ('Clean Power 2030'). This was premised on the idea that the old energy trilemma had collapsed, that there was no longer a trade-off between affordability, sustainability and security now that the cost of renewables had fallen.[4] There is merit to this argument in a basic sense. Renewable generation capacity is clean, sovereign and has very low running costs once built. However, just because renewable generation should be cheap in principle, does not mean that it is necessarily cheap in practice.

The latest crisis demonstrates this. We have more renewables as part of our generation mix than ever before, with the combination of solar, onshore wind and offshore wind shooting up from a negligible share in 2010 to 34% of total generation by 2025, but this rapid deployment of renewable generation capacity hasn't led to lower prices for consumers.[5] Conversely, prices have ratcheted up. From 2010 to 2025, electricity costs rose by 150%.[6] This is well in excess of the rise of the general Consumer Price Index over the same period, which itself rose by 55% (in large part because of the direct and indirect effects of higher electricity costs).[7]

Analysts quite rightly point out that the recent price spikes are driven by fossil fuels, and that recent crises would have been worse without the renewable's buildout of recent years.[8] This is all true, but it does not mean that the renewables rollout in recent years has led to significantly lower bills for end-users, it has not. Nor does it follow that blindly building out as much renewable generating capacity as possible—on the assumption that clean equals cheap—is the answer that our energy system needs.

The UK energy system is exactly that: a system. It operates as a connected network. It is certainly the case that the cost of renewable generation, per unit of electricity generated, has fallen in recent years, and that renewable technologies, such as solar and wind, have become very competitive compared to other generation technologies on that metric.[9] But that metric alone does not reflect the wider system costs of integrating renewables into our generation mix. Just because unit generation costs are cheap, it does not follow that end-user costs are cheap.

4 For example, see Department for Energy Security and Net Zero and The Rt Hon Ed Miliband MP, 'Energy UK conference 2024: keynote speech by Ed Miliband', 17 September 2024.

5 Figures from ET5.1, Table 5c in Department for Energy Security and Net Zero, 'Energy Trends: UK electricity', 30 July 2026.

6 Office for National Statistics, 'D7DT', 17 June 2026.

7 Office for National Statistics, 'D7BT', 17 June 2026.

8 For example, Ember, 'Clean power fortifies Britain against gas price shocks', 9 April 2026.

9 For example, International Renewable Energy Agency, 'Renewable Power Generation Costs in 2024', July 2025.

The extent to which cheap per unit generation costs for renewables can be fed through to consumers depends on numerous factors, with the following particularly important:

- Where generating capacity is built
- Whether we have adequate storage capacity
- How supply is secured for the system-at-large
- Who owns the generating and storage capacity

Regarding location, system costs increase if generating capacity is not built where power is demanded. For example, it has become increasingly clear that building lots of offshore wind off the coast of Scotland has not been a free lunch. Technically speaking, per unit generating costs are low, in large part because conditions in that location are very conducive for wind generation.

However, there is a cost to transmitting the generated electricity to the population centres where it is actually demanded, particularly the south of England. It is now estimated that something like £90bn worth of investment in the network will be required across the 2030s to ensure that we have the capacity to effectively transmit renewable generated electricity.[10] In the meantime, we are paying increasing amounts each year to curtail renewable generation that cannot be transmitted and fire-up gas power plants in the regions where electricity is demanded. This cost billpayers £2.2bn in the year to June 2026 and the National Energy System Operator (NESO) estimates that these 'constraint costs' will rise to £3.2bn in the following year.[11]

Curtailment payments are necessary to induce private investment in renewable projects. To date, we have been almost completely reliant on private investment to drive renewables deployment, and curtailment payments are just one of the ways that such investment is 'de-risked'. Contracts for Difference, which guarantee fixed revenues per unit of electricity generated, are the primary mechanism. It is important to understand the consequences of relying on this approach to generating investment.

Fundamentally, it means that buildout depends on profitability. Renewable projects will only go ahead if they are expected to make a certain rate of return for private investors. For as long as this remains the case, a rapid buildout of clean generation capacity which helps us fully decarbonise while significantly lowering bills for end-users is effectively off the table, because it is simply not in the interests of private investors to keeping investing large amounts in the provision of a service that is supplied in ever greater amounts that they can charge less and less for.

10 The Guardian, 'Cost to rewire Great Britain's electricity network could reach £90bn in 2030s', 30 June 2026.
11 The Times, '£3.2bn to switch off power plants when network cannot cope', 26 June 2026.

The only way in which significant private deployment can continue is if the government provides ever higher guarantees regarding the price that consumers will pay for the electricity that they generate. This is exactly what has happened with the two Contract for Difference auction rounds that have taken place since Labour returned to government: significant amounts of offshore wind capacity have been procured, but at the expense of significantly more generous revenue guarantees, undermining the logic of deploying renewables on the basis that they are cheap.[12]

Another factor which determines our ability to capitalise on the potential cheapness of renewables is storage capacity. Having adequate storage capacity could mean that generation could be effectively re-profiled, provided to end-users when they demand it, rather than when conditions for renewable generation are conducive. Building out storage capacity adds another layer of costs which chips away at the supposed cost-advantage of renewables, but as with renewables themselves, the marginal costs of utilising storage systems (charging and discharging) are very low, so the combination of renewables and storage systems could still be cost-effective.

The issue we have is that, again, we are relying almost completely on private investment to buildout storage capacity, and many of the private investors being attracted to the sector are those who understand storage as an attractive trading opportunity. Rather than supporting the stability and efficiency of the system-at-large—and helping pass on the low costs of renewable generation—they exploit the low marginal cost of charging and discharging, to buy low and sell high, making handsome profits as they exploit loopholes and system vulnerabilities. This creates an incentive for capital to flow into the sector and for storage capacity to be built out, but again, the logic of 'clean equals cheap' is undermined: clean assets are only being built out because their prospective owners are able to charge high prices, not because they want to help pass on low prices.

Lastly, it is vital to acknowledge that renewables cannot provide security of supply on their own, a fact which is significantly underappreciated in debates about renewable deployment. Renewable technologies are intermittent by their nature, and we need other technologies which can generate power on the occasions when renewables do not provide enough supply to meet demand.

12 The strike price for Offshore Wind has risen from £37.25/MWh (2012 prices) at Allocation Round 4 to £65.45 at Allocation Round 7. See Department for Energy Security and Net Zero, 'Contracts for Difference Allocation Round 4 results', 7 July 2022 and Department for Energy Security and Net Zero, 'Contracts for Difference Allocation Round 7 results', 14 January 2026.

Electricity source	2000	2005	2010	2015	2020	2025
Coal	30.9%	33.4%	28.0%	21.2%	1.7%	0.0%
Gas	39.0%	38.7%	47.3%	28.9%	34.7%	29.3%
Nuclear	21.1%	19.5%	15.5%	18.8%	14.7%	10.7%
Renewables and storage	1.4%	1.7%	3.5%	15.6%	29.9%	35.8%
Bioenergy	1.1%	2.3%	3.1%	7.5%	11.3%	12.2%
Oil and other fuels	2.7%	2.1%	1.8%	1.8%	2.1%	2.3%
Net imports	3.8%	2.2%	0.7%	6.2%	5.7%	9.6%

Source: Figures from ET5.1, Table 5c in Department for Energy Security and Net Zero, 'Energy Trends: UK electricity', 30 July 2026.

Storage can play a significant role in reprofiling generation, but battery systems can typically only generate for a few hours at a time, and even the largest storage technologies, such as pumped storage hydro, can only provide something like 24hrs worth of continuous power before they are exhausted. Ultimately, some sort of dispatchable power solution (which can generate on demand for as long as required) is going to be necessary if we are to have ultimate security of supply. Currently, unabated gas generation plays this role, but it is not a clean source of power. Neither is it an affordable source of power, as plant owners charge exorbitant rates to generate power when the system most needs their generating capacity.[13]

A high-level analysis of the UK's generation mix over the last 25 years illustrates the failures of the existing approach to decarbonising power. As the below table demonstrates, renewables and storage have grown sharply to effectively compensate for the phase-out of coal and the decline of nuclear, but it has only been able to do this in conjunction with net imports. In practice, this means that the renewable capacity we now have generates electricity when conditions are conducive, storage reprofiles some of that generation, and we then rely on imported electricity from our continental neighbours when the combination of renewables and storage is insufficient, as shown in the table above.

The problem with this is clear: renewables and storage are being sold as technologies which can help reduce our reliance on fossil fuel based technologies, all while reducing costs and increasing our energy security, but we have

13 The Guardian, 'Profiteers or keeping the lights on? The power plants that make millions a day', 27 September 2025.

ended up in a situation where we are paying private investors a pretty penny to build out renewables and storage capacity, while we have become increasingly reliant on expensive foreign imports to compensate for the shortfalls of the newly deployed technology.[14]

What's more, this is all before we have even made a dent in reducing our reliance on the forms of domestic, dispatchable power which provide ultimate security of supply. With coal having been completely phased out of our generation mix, unabated gas generation is the UK's main source of dispatchable power. This is supplemented by a small amount of biomass capacity, primarily accounted for by the Drax power station in Yorkshire. While typically classified as carbon-neutral, Drax and other plants classified as 'bioenergy', including energy-from-waste plants, have been found to be similarly or even more emissions-intensive than the coal power stations they sought to replace.[15] Nor are they more affordable, with significant subsidies having been required to guarantee Drax's continued operation.[16] As the above table illustrates, the share of gas and bioenergy generation has been resilient over the last 25 years, edging up from 40.1% in 2000 to 41.6% in 2025, peaking in-between these years as gas helped compensate for declining coal and nuclear generation.

None of this means that renewables, storage and interconnectors—which facilitate the import and export of electricity—do not have an important role to play in a decarbonised power supply, they do, but it does mean that we need to think more seriously about how these technologies should be deployed and the role they can play within a genuinely clean, affordable and secure system. Rushing towards renewables and storage in the expectation that they can replace unabated gas in providing security of supply will not work.

When you understand that (a) renewables capacity is only continuing to be built out at scale as a result of increasingly generous revenue guarantees, (b) a significant amount of renewables generating capacity has not been built close to demand centres, (c) storage capacity is being operated in the interests of profit maximisation rather than system efficiency, and (d) we still have to pay significant amounts for unabated gas, biomass and electricity imports when renewable generation and storage is insufficient, then it is easy to understand why UK electricity prices remain

14 The Guardian, 'Europe's heatwave drives electricity prices to new highs as demand soars', 23 June 2026.

15 Ember, 'UK's largest emitter Drax reports record emissions in 2025', 9 July 2026; BBC News, 'Burning rubbish now UK's dirtiest form of power', 15 October 2024.

16 The Guardian, 'Drax claimed record £999m in subsidies for burning trees in 2025, thinktank says', 16 April 2026.

high in spite of a significant rollout of supposedly cheap renewables.

Nevertheless, the direction of travel on decarbonisation is, ultimately, clear. The imperative for climate action is stronger than ever, as the costs of a warming climate mount and increasingly frequent and severe weather events devastate developed and developing countries alike. But even aside from this, there is a clear rationale for fossil fuel importing countries, like the UK, to build-out homegrown sources of clean power generation and reduce their exposure to global fossil fuel markets.

As the think tank Ember highlights, even if a country does not manufacture the clean power technology itself, energy security can be significantly strengthened through 'cleantech' adoption, as the technology only has to be imported once for benefits to be reaped for decades, compared with fossil fuel systems which require continued fuel imports day-after-day, year-after-year.[17]

Data from the International Energy Authority (IEA) bears this out: over the last decade or so low carbon technologies have come to account for the vast majority of investment in generation assets for all regions of the world, except for the Middle East and the US, who are, of course, major fossil fuel producers.[18] The IEA notes that there has been an increase in approvals for gas-fired power plants in recent years, but this is primarily in countries which are net exporters of gas, not net importers.[19]

The rationale for pursuing homegrown clean power was, therefore, clear before the recent conflict in Iran and is even clearer in the wake of the conflict. The question is less whether clean power infrastructure gets built out, but how.

The problems outlined in the analysis of the UK's renewable rollout above suggests that we have a new trilemma to replace the old 'Sustainability-Affordability-Security' trilemma:

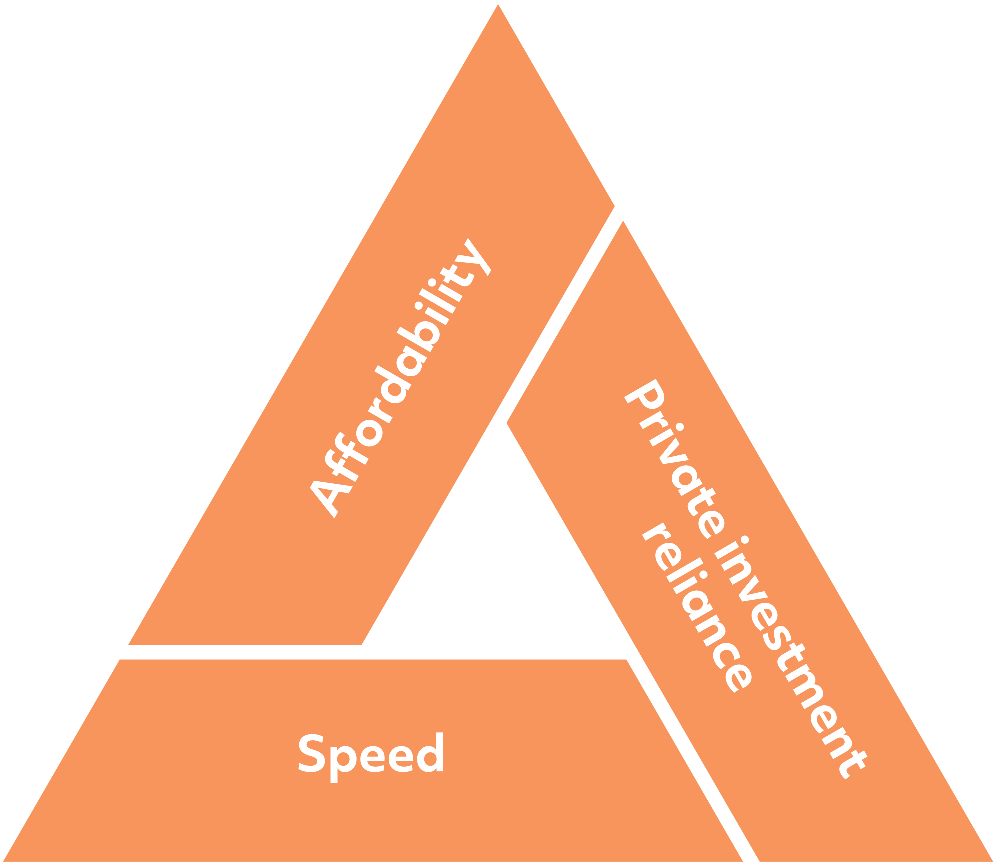
The decarbonisation trilemma

The trilemma is that we cannot have all three of the above. We need to sacrifice on at least one. The scenarios are as follows:

- Private investors will build out assets quickly, but only if they are compensated generously, **sacrificing affordability.**

- We could limit subsidies and price guarantees for clean power projects, but this will significantly slow the buildout of assets, **sacrificing speed.**

17 Ember, 'Energy Security in an Insecure: World The New Electrotech Strategy', April 2025.
18 International Energy Authority, 'World Energy Investment 2026', 28 May 2026, p 77.
19 As above, p 75.



- The public sector could buildout assets quickly, without being concerned about the effect increased supply and falling prices would have on profit margins, however, this would mean **sacrificing our reliance on private investment** as the principal driver of the transition.

This trilemma is, ultimately, a simplification. There are nuances involved. For example, there is a reasonable argument that sacrificing speed does not guarantee affordability, given that it will leave us exposed to global fossil fuel markets for longer. However, the trilemma highlights the fundamental trade-offs involved. We cannot pretend that all of the above are possible; we need to choose what our priorities are.

Prospect has long been an advocate for renewables as a significant part of a secure and decarbonised energy system and this remains our position. We do not believe that sacrificing speed is an acceptable option when the need for climate action and greater energy security is so urgent. Neither do we believe that sacrificing affordability is an acceptable option, when bills are already so high and the promise of cheap homegrown energy is real.

It follows, therefore, that we must accept a greater role for the public sector in driving the transition to clean power.

The following sections outline three different ways that strategic public intervention can facilitate the transition to decarbonised power while reducing costs for end-users.

Solution 1:
Dispatchable power operated in the public interest

As previously outlined, renewables are not able to provide security of supply, even when combined with storage. UK security of supply is ultimately provided by dispatchable power, primarily unabated gas.[20] This is expensive for several reasons:

- **The cost of procuring gas**
  The UK is a net importer of gas and the gas we do produce domestically is controlled by private companies and foreign state-owned enterprises.[21] Therefore, we have to pay whatever the going rate is on global markets to procure the necessary supplies. Geopolitical events over recent years have contributed to significant spikes in the price of gas and there are no signs that these geopolitical conditions will be more benign in the near future.

- **The cost of maintaining capacity**
  Billpayers pay a retainer to gas power plants ('Capacity Market' contracts) to ensure that they remain open and are able to generate power as and when required. Aurora Energy Research found Great Britain to have the most generous Capacity Market in Europe, dishing out €24.3bn worth of contracts for 2015-24, with 59% of this funding allocated to gas generators.[22]

- **The cost of 'market' power**
  In addition, to paying once to maintain capacity, billpayers have to pay gas generators a second time when they actually generate power. In theory there is a market for power generation, with generators constantly submitting bids to sell power to the NESO, who purchase power from generators in 'merit order', that is, cheapest first, to ensure that the system remains in balance and supply matches demand. This competitive auction-based system is supposed to keep prices down, but in the frequent situations where renewables, storage and the residual nuclear capacity we have is not enough, unabated gas is the only domestically based source of power we have to balance the system. The fact that there is no alternative gives the gas plant owners the power to charge exorbitant amounts, sometimes up to "100 times higher than normal market prices", far in excess of the actual marginal cost of generation.[23] This dynamic has worsened recent years

20 As highlighted above, biomass plants, such as Drax, also play an important role in providing security of supply, and the logic of the argument put forward in this section also applies to such plants. However, unabated gas in general, and the large, combined cycle gas turbine (CCGT) plants in particular, are focussed on given they account for the vast majority of dispatchable power capacity.

21 Common Wealth, 'Who owns the North Sea?: Mapping ownership of the UK's oil and gas licenses', 19 July 2021.

22 Beyond Fossil Fuels, 'Capacity markets have awarded over €50bn to fossil fuel assets since 2015 — almost triple of that allocated to clean flexibility', 28 January 2025.

23 The Guardian, 'UK gas plants in line for large windfall payments to keep lights on this winter', 18 June 2025.

as ownership of the UK's largest gas power stations—combined cycle gas turbine (CCGT) plants—has become more concentrated. For example, in 2013, plant-owners owned an average of 2.9 stations with an average total capacity of 2.2GW, whereas in 2025 this had risen to an average of 4.0 stations per owner with an average total capacity of 3.6GW, with just two companies now owning almost half of total CCGT capacity.[24] Moreover, this concentration has occurred all while we have simultaneously phased out the only other form of dispatchable power generation, coal, that provided us with an alternative route to securing supply.

- **The propagation of high costs**
  The above costs are further amplified by our marginal pricing system. Gas is the marginal source of generation the majority of the time and under the marginal price system all generators that are not subject to a fixed price contract—a Contract for Difference, for example—receive the bid-price that has been offered by the marginal generator, even if they were willing to sell their electricity for a lower price.

It is for these reasons that analysts of the UK electricity system see gas generation as the most significant cause of high prices.[25] If we are to structurally reduce wholesale electricity costs, we need to (a) mitigate the dynamics cited above in the near-term, and (b) invest in clean dispatchable technologies to replace unabated gas in the longer-term. Proposals for such action are outlined below.

Near-term action: Bringing the gas generators under public control

We are dependent on gas generated power for security of supply. However, the long-term future for gas power plants is uncertain, not least because it is official government policy to phase them out as it decarbonises both the power system and the wider economy. In this context, private investors have been offered various carrots to encourage their continued investment in, and operation of, the plants, primarily through Capacity Market contracts and the freedom to charge extremely high prices and make significant profits at times of system stress. However, these carrots are costly for billpayers, and some sticks need to be used if costs are to be brought under control.

The cost of procuring gas on global markets is an unavoidable cost.[26] However, all of the other key cost drivers cited above can be addressed by

24 Prospect analysis of 'Power stations in the United Kingdom, May 2026 (DUKES 5.11)' in Department for Energy Security and Net Zero, 'Digest of UK Energy Statistics (DUKES): electricity', 30 July 2026.

25 Carbon Brief, 'Factcheck: Why expensive gas – not net-zero – is keeping UK electricity prices so high', 20 May 2025.

26 The UK has a dwindling supply of domestically produced gas which, in any case, is sold at global market rates. Uplift, 'Just One Month's Gas Supply From 14 Years of Licensing by Previous Government', 28 March 2026.

changing the funding and operating model of the plants.

Rather than being paid a Capacity Market contract and being paid each time they generate, the current owners of the gas plants could instead be offered a single long-term contract, which guarantees to remunerate them for their input costs (fuel), operating costs and necessary maintenance work, allowing for a small operating profit once those and other necessary costs are accounted for. As part of that contract, decisions about when to generate will effectively be handed over to the electricity system operator, NESO. NESO will be under instruction to minimise the use of the plants as far as is practicable, but when they are utilised, they will no longer play a role in setting (and inflating) the wholesale price of electricity more broadly.[27]

Should gas plant owners not want to sign-up to such a contract, they should have the option of selling their assets, with the plants taken over by a public sector organisation and operated in the same way. Purchasing these assets will create a short-term fiscal cost, but there would be a series of benefits gained in return:

- Ongoing costs will be reduced, as there will no longer be a need for any profit margin and there will be efficiency gains and economies of scale as a result of the plants being increasingly owned by a single organisation and operated in the public interest. Rather than submitting extortionate bids to NESO which bear little relation to their operating costs, individual plants could submit their actual marginal operating costs to NESO, who will then be able to balance the system more efficiently with actual system constraints in mind. NESO would also be able to plan plant outages better, compared to the current situation whereby plants all plan regular outages in the summer and NESO has to pay them to postpone so they do not all go offline at the same time.

- The public sector having direct ownership of the plants will also be helpful for managing the transition of the plants to cleaner forms of power generation (the subject of the following section) and guaranteeing a Just Transition for the existing workforce, avoiding the likelihood of having to spend significant amounts of public money to incentivise the current owners to make the same transition.

- Direct ownership would also provide the government with a straightforward way to absorb and manage the impact of gas prices shocks. Currently, when the prices of gas rises, the price of electricity then rises, domestic consumers then have less disposable income, as do businesses who then raises their

27 For more detail on how such a contract could work, see Greenpeace and Stonehaven, ‘Power Shift: how the Labour government can bring down bills and bolster net zero by curtailing the power of gas’, September 2025.

prices, which exacerbates the inflationary impact of the initial electricity prices rise. The government pays for this in terms of (a) bailing out vulnerable consumers and subsidising energy-intensive businesses, (b) high debt service costs as interest rates are raised or kept high in an attempt to reduce inflation, and (c) lower tax receipts due to the detrimental macroeconomic impact of all the above.[28] This entire cascade could be prevented if the government were able to directly absorb the increased cost of gas at source. It is not impossible to devise a scheme to help absorb these costs while the plants remain under private ownership, but it would be complex and significant guardrails would be required to ensure that private owners were not benefiting unduly from the arrangement.

There will be a trade-off in terms of how generous the terms are for a single long-term contract and/or the terms of any asset sale to the government. The government needs to be bold and set stringent conditions for both of these things if it's serious about tackling the biggest driver of our high electricity costs. The current gas plant owners will have no interest in the status quo being altered, and will no doubt push back and claim that the government is acting unfairly, or even illegally, by setting stringent conditions. However, several things need to be borne in mind:

1. To the extent that unabated gas assets are judged to have significant value, it is only because the government continues to offer generous capacity market contracts and maintains a pricing system that generously renumerates gas plants.[29]

2. The government is under no obligation to keep offering generous Capacity Market contracts or maintain a pricing system that generously renumerates gas plants. These are policy decisions and the government has the right to change how things work going forward.

3. The interests of gas plant owners are inversely related to consumers: the profits they make are at the expense of consumers, and there is no route to significantly reducing costs for consumers which does not involve tackling some of the most egregious profiteering in the sector.

28 For example, the various support schemes to help domestic consumers deal with the 2022 fossil fuel prices shock was approximately £76bn. Separately, the Institute for Public Policy Research estimate that higher debt service and lower tax revenues in the wake of the 2026 conflict in Iran could cost the exchequer around £8bn per year. See Institute for Public Policy Research, 'Price caps and economic stability: How to manage the Iran war energy shock?', 7 May 2026.

29 For example, Centrica recently purchased the Severn CCGT power plant, and in the news alert issued to investors via the London Stock Exchange, revenues from capacity market contracts and high expected profit forecasts for ongoing operations were explicitly cited in justifying the purchase and its associated cost. See London Stock Exchange, 'Acquisition of the Severn CCGT for c.£370 million', 7 May 2026.

In short, the government has the right to set the conditions under which these assets operate, and it should use that leverage to get a better deal for consumers. Gas plant owners should have the opportunity to accept a new regime and have the opportunity participate constructively in it, and where they do not, the public sector can pick up the slack and start owning and operating the assets itself.

Some might express concern at the potential expense of the public sector taking over these assets, but it is important to bear in mind the first point above: to the extent that these assets are valued highly, it is only because they operate within a very generous regime, and if the government changes the regime the asset values will fall.

Furthermore, we are not facing a choice of cost vs no-cost, rather we are facing a choice of which costs we want to bear. If we do not change the current regime, consumers will pay significant amounts to the gas plant owners over the coming years. Therefore, even if the government did not want to fund asset purchases through general taxation, funding the purchases through consumer levies would still ultimately be better for billpayers than the status quo, as it would provide the government with strategic control of the assets which have the largest impact on electricity prices.

Analysis on this issue by the consultancy Stonehaven and the think tank Common Wealth help provide a sense of the relative costs and benefits:

- Regarding the potential costs involved, Stonehaven suggests that the cost of purchasing the plants would amount to their depreciated book value, £17.4bn, plus the Net Present Value of their forward revenue, £50bn.[30] Clearly compensating them today for extravagant profits they currently expect to make tomorrow would be preposterous—the policy objective here is explicitly to stop them making such extravagant returns into the future. As per the logic of the argument set out above, the government should be firm and aim for compensation at or close to depreciated book value, which would amount to something like £11 per household per year if spread over a 20-year period.[31]

- Regarding the potential savings involved, Common Wealth estimate that the profits of the current owners of the gas plants amount to something like £120 per household per year.[32]

30 Greenpeace and Stonehaven, 'Power Shift: how the Labour government can bring down bills and bolster net zero by curtailing the power of gas', September 2025, p 24.

31 As above, p 22.

32 Common Wealth, 'Nationalise Gas to Lower Bills: How a Public Strategic Reserve Can Lower Costs and Enhance Energy Security', 27 April 2025.

Therefore, major savings could be made simply by purchasing the plants and operating them in the same way, at cost (i.e. without making a profit), even before any efficiency benefits are gained from operating the plants in a more sensible way, and even before you take account of the fact that the price paid to gas generators will no longer inflate the price paid by to other generators.

Furthermore, analysis of recent market-based transactions suggests that even paying book value might be generous. Recent sales of CCGT plants include the following:

- Drax selling four CCGT plants, with a combined capacity of 2.0GW to VPI in 2020 for £193m.[33]
- TotalEnergies buying West Burton Energy, which owns and operates the 1.3GW West Burton B CCGT plant, for £450m in 2024.[34]
- Centrica purchasing the 850MW Severn CCGT plant for £370m in 2026.[35]

As can be seen, the prices of these transactions, per GW of generating capacity, have risen over recent years. This is no doubt due to how profitable these assets have proven to be for certain owners. For example, from 2021 to 2023, VPI generated profits worth well over £1bn from the assets it purchased for less than £200m in 2020.[36] Nevertheless, even if you go by the most recent and comparatively expensive purchase—Centrica purchasing the 850MW Severn CCGT plant for £370m in 2026—this would equate to approximately £12.5bn if the same £/MW ratio was replicated for the whole 28.8GW CCGT fleet. Although any reasonable market value would likely be less than this, given that Severn is one of the newest and most efficient CCGT plants.

An alternative to offering book value for all plants, therefore, would be to pursue a series of market-based transactions. Strategically picking off the most affordable assets initially and purchasing remaining assets later when their market power and asset values have fallen.

However, there will be a trade-off involved in that, as it limits the ability for a sharp and immediate cut in wholesale costs that will feed through to end-users. It may be, therefore, that a comprehensive scheme which aims at gaining public control of the entire fleet as quickly as possible is the most desirable course of action.[37]

33 Drax, 'Sale of gas assets for £193.3 million and trading update', 15 December 2020.

34 TotalEnergies, 'Integrated Power: TotalEnergies Acquires a Gas-Fired Power Plant in the United Kingdom', 6 May 2024.

35 London Stock Exchange, 'Acquisition of the Severn CCGT for c.£370 million', 7 May 2026.

36 Financial Times, 'Vitol-owned UK power group enjoys profit surge on market disruption', 28 September 2024.

37 Regardless of which course is pursued, careful attention should be paid to decommissioning costs. It would clearly not be in the public interest to purchase assets which shortly need to be decommissioned at significant expense.

In addition to considering to costs of this proposal relative to the potential savings that could be made, it is also worth comparing it to the cost of existing government policy measures to reduce electricity bills. The following outlines the costs and estimated savings of recent government policies to reduce electricity bills.

Policy:

At the Autumn Budget 2025, the government announced that it would fund 75% of the domestic cost of the legacy Renewables Obligation scheme for three years, 2026 to 2029.

Cost:

£6.9bn in total, or around £2.3bn per year.[38]

Potential saving:

The policy is expected to reduce the average household bill by £88 per year.[39]

Policy:

In July 2026, the government announced that it would reduce the rate of VAT on domestic electricity bills from 5% to 0% for 6 months from 1 October 2026.

Cost:

£850m for 6 months, or £1.5bn per year.[40]

Potential saving:

The policy is expected to reduce the average household bill by the equivalent of £45 per year.[41]

38 HM Treasury, 'Budget 2025: Strong Foundations, Secure Future', 26 November 2025, p 87.

39 HM Treasury, 'Budget 2025: Strong Foundations, Secure Future', 26 November 2025, p 28, footnote 77.

40 56% of annual electricity consumption by households typically takes place from October to March, which explains why the annual figure is not simply double the 6-monthly figure. See Institute for Fiscal Studies, 'Temporary VAT cut on household electricity bills: IFS response', 21 July 2026.

41 Prime Minister's Office, 10 Downing Street, HM Treasury and Department for Energy Security and Net Zero, 'New PM cuts tax on household electricity bills to give breathing space on cost of living', 21 July 2026

According to the government's own calculations, therefore, they are spending the equivalent of something like £3.8bn per year to reduce the average annual bill by something like £133. As per the figures above, they could get a similar benefit by spending a lot less by taking over the gas plants and operating them at cost, with the potential for significant further gains if the plants are operated more efficiently under public ownership.

The policies do not need to be mutually exclusive, but gaining ownership of the gas plants should be the first priority, not only because it can help reduce bills in the short-term and help the government deal with gas price shocks in a more cost-effective way, but also because it will then provide the public sector with an asset base from which it can then build a new generation of clean, dispatchable power plants, which is vital if wholesale costs are to be held down into the future.

Longer-term action: Public investment in clean, dispatchable technologies

A possible objection to the above is that the large savings pointed to above will only be transient and will fall as unabated gas is phased out. However, as highlighted previously, it is unabated gas which provides ultimate security of supply, and it can only be fully phased out if we invest in clean dispatchable technologies to replace it, and this is not happening in any kind of significant way.

In their report, 'Resource Adequacy in the 2030s', published in 2025, NESO highlight the mix of technologies which will be required if we are to effectively phase-out unabated gas generation from the generation mix:

- Nuclear
- Hydrogen
- Gas with carbon capture and storage (CCS)
- Long duration energy storage (LDES), in the form of pumped storage hydro (PSH) and battery energy storage systems (BESS).[42]

As they point out:

> *If one or more of these technologies is not brought forward, this will increase dependency on a smaller number of new technologies. If no new low carbon technologies are delivered, we will remain reliant on existing and new-build unabated gas for adequacy.*[43]

As things stand, NESO expect unabated gas capacity to remain on the power system by 2040, noting that even if we are successful in reducing our reliance on them, there will be challenges with maintaining the plants and

42 National Energy System Operator, 'Resource Adequacy in the 2030s', July 2025.

43 As above, p 7.

ensuring they remain economically viable even while they are used less and less.

Investment in nuclear can help reduce our reliance on unabated gas for consistent baseload power, and investment in storage can reduce the need to fire up gas power plants for short periods of time. This investment will be vital and is the subject of the following two sections.

However, it is not sufficient by itself, and investment in clean dispatchable technologies—which can operate on demand for as long as necessary—is what we really need if we are to fully and effectively phase out unabated gas, and avoid the costs associated with perpetually maintaining a significant amount of gas power plant capacity in a constant state of readiness.

NESO point towards two potential dispatchable technologies: hydrogen (known as 'hydrogen to power' in this context) and gas with CCS. However, neither of these technologies are commercially viable at this stage. Given they will, by design, be only playing a small (but vital) part in the energy system, and both technologies have a cost premium relative to unabated gas, the commercial incentives for investing in the technology at scale are limited. It is likely that significant private investment in these technologies will only be secured, and significant generating capacity maintained over the longer-term, if there are substantial subsidies paid by either billpayers or government, and/or these new technologies were allowed to do what unabated gas currently does and demand exorbitant amounts of money for their services when the system requires them at time of stress. Clearly this would not be a desirable situation to replicate.

Given that public money is going to be required to support the development of these technologies anyway, we propose advocating for a significant public investment drive in clean dispatchable generation assets, with a view to them being operated by the public sector over the long-term. If operated in this way, they could be utilised in the interests of balancing the system only, with their efficient operation reducing costs for end-users into the future, just like how efficient public sector operation of gas power plants would reduce costs for end-users today.

Regarding the technologies to invest in, there are clear advantages for hydrogen to power over gas with CCS. The latter locks-in our current dependence on global fossil markets, while adding further unavoidable costs to the power generation process, in form of capturing, transporting and storing carbon emissions. Hydrogen, in contrast, can be produced domestically and can generate power without producing any emissions ('green hydrogen'). At this stage, green hydrogen is not cheap to produce, and there is a premium to building hydrogen to power stations compared to gas power stations, however, there is a clear route to both of these things becoming more affordable over time as the technology is developed and commercial-scale infrastructure is built out.

The consultancy Baringa recently produced a report for government on the costs of hydrogen power relative to unabated gas.[44] Some key insights from the report were as follows:

- When turbine generators capable of operating with 100% hydrogen become available in the early 2030s, the capital expenditure premium for newbuild hydrogen power stations is expected to be less than 10% compared to an equivalent natural gas system.
- Hydrogen turbine generators are expected to follow similar maintenance schedules to their natural gas equivalents, with no material increase in operational expenditure.
- Key performance metrics including efficiency and ramp rates are consistent between natural gas and hydrogen engine archetypes.
- Retrofitting gas power stations to run on 100% hydrogen are estimated at £110-150 per kW, or roughly 20-25% of newbuild costs, and would typically result in a 30% power derate.

In summary, the costs of building and operating hydrogen power stations are not significantly higher than their natural gas alternatives. If existing gas power stations were brought into public ownership, there could be a managed programme of retrofitting newer gas stations to run on 100% hydrogen and replacing older gas stations reaching the end of their operational with completely new stations.

The bigger barrier to large-scale deployment is the lack of capacity we have to produce, transport and store hydrogen, i.e. to ensure that an adequate supply of hydrogen is available if we do buildout significant hydrogen to power capability.

There are technical questions to answer as to how best we do all of these things, as there are various options as to how we produce, transport and store hydrogen. For example, it can be produced from water via electrolysis (renewable or nuclear enabled) but also through cracking ammonia. Ammonia can act as a practical and cost-effective hydrogen carrier, utilising the established, pre-existing global infrastructure designed for fertilizer, but hydrogen can also be transported directly through high-pressure pipelines. Hydrogen can also be stored on the site where it is due to be used, but this is comparatively expensive compared to storing it in salt caverns, although the possibility of this depends on whether the local geology is appropriate.

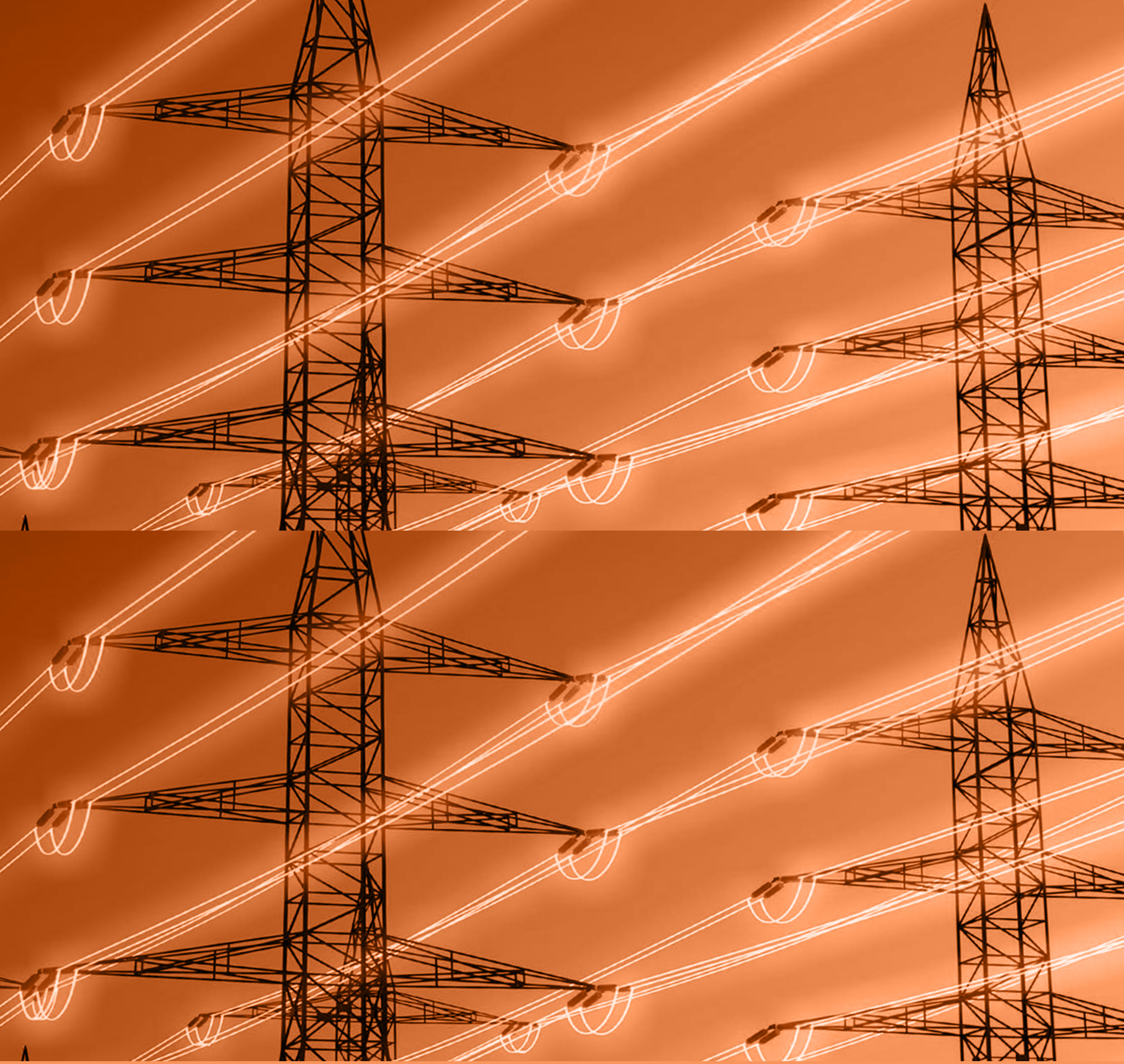
Rather than a winner-takes-all solution emerging, it is likely that the most appropriate solution will be different in different parts of

44 Department for Energy Security and Net Zero, 'Hydrogen to power: cost and technical assumptions', 14 January 2026.

the country, with pre-existing infrastructure retrofitted and utilised where appropriate. The more fundamental issue we currently have is the inability of private companies to pursue any of these options at scale and coordinate the simultaneous scaling up of hydrogen supply with its demand. Private off-takers will not make significant orders unless costs fall, but costs can only fall with growing scale, and there is no incentive for potential suppliers to scale up production if they cannot be certain that there will be significant demand from off-takers.

The state can address these issues by simultaneously scaling both supply and demand. For example, a managed programme of hydrogen to power buildout (both newbuild and gas retrofit) will provide certainty for hydrogen production, transportation and storage requirements over the coming decades. The public sector can then invest in its own production capability to meet these requirements, and/or it can commission the private sector to provide the same capability if private operators offer to provide the required capability in a cost-effective way.

There will, of course, be costs associated with building out this capability, but as highlighted before, costs are unavoidable. We are not facing a choice of cost vs no-cost, but what costs we want to bear. If we are serious about having clean and secure power, then we ultimately need to make these kinds of investments. The choice we face is whether we pay more upfront to retain public control of these assets, ensuring they are operated efficiently and affordably in the public interest over the coming decades, or whether we subsidise private companies to make the same investments, and allow them to operate in the same way that the gas plant owners currently do: inefficiently and expensively in line with private interests.



Solution 2:
Publicly owned storage

A significant buildout of storage capacity has the potential to provide NESO with valuable tools to help balance electricity supply and demand in an affordable way, with cheap renewable electricity absorbed when there is excess supply and dispersed when there is excess demand. However, as previously highlighted, this promise is being negated as a result of the way our storage capacity is being built out.

We are currently relying on private investors to build out capacity, and there are several revenue streams enticing them to do so:

- **Buy low, sell high**
  Batteries are charged when prices are low and discharged when prices rise.

- **Capacity mechanism**
  Operators get a retainer just to be on stand-by in case of shortages.

- **Ancillary services**
  Using batteries to stabilise power frequencies and voltages generates more income.

- **Balancing mechanism**
  Battery operators get paid to soak up surpluses or make up deficits, ensuring supply matches demand.

The combination of multiple revenue streams and extremely low variable costs (very few staff are needed to maintain and operate battery systems once installed) has led battery storage to become a major commercial opportunity. As a recent Telegraph report put it, battery storage presents a "dream mix of low risk and high returns", with annual returns for battery systems in the order of 15%, better than the 10% investors might expect from solar or onshore wind.[45] The people in charge of operating these assets on a day-to-day basis are typically not those with a history of working in the power sector, but those with a history of working in the financial sector, including high numbers of former oil and gas traders.

Rather than passing on cheap power, therefore, financial traders are effectively hoarding it through storage assets and only putting it back into the system when it is profitable for them to do so. Moreover, it is becoming common for storage assets to earn vast revenues by exacerbating, rather than easing, system constraints.

For example, NESO has recently been increasingly struggling with the phenomenon of 'repetitive re-trading', whereby storage assets absorb surplus electricity and bid to sell it back to the grid immediately, even though there is still a surplus. These assets get paid by NESO not to discharge until systems constraints have eased and the electricity from the storage assets can finally be absorbed. Repetitive re-trading

45 The Telegraph, 'Miliband's battery subsidies are the next net zero gold rush', 3 February 2026.

cost NESO almost £100m in 2025/26 and the monthly cost is rising as storage assets gets built out.[46]

With this context, it is no wonder that we have so many battery storage projects wanting to connect to the grid, and that battery storage is the one technology that remains massively oversubscribed in the connections delivery pipeline.[47]

It is tempting to think that issues such as repetitive re-trading could simply be solved with straightforward rule-changes and the closure of the loopholes that operators exploit. However, previous attempts at rule-changes to reduce costs for consumers suggests this would not be straightforward.

Currently, clean generation and storage assets which receive subsidies factor these into the prices they offer when asked by NESO to reduce their electricity output to help balance the system. In October 2023, NESO proposed code modification P462, which would have removed subsidies from their bid prices, so that NESO has a better view of the real costs of balancing the system and does not disproportionately rely on subsidised assets which ultimately end up being more expensive. Almost three years on, P462 still has not been implemented, having received intense industry pushback. Foremost amongst the objections is the idea that anything which could "decrease revenue opportunities" for clean flexible assets "could then decrease investment in those assets at a time when they are needed to achieve Clean Power 2030".[48] This clearly demonstrates the decarbonisation trilemma in action: private investors will build out the assets we need quickly, but only if they are allowed to make lots of money from those assets at the expense of consumers.

Rather than attempting to tweak the rules and incentives for private investors in storage assets, a simpler and more effective approach would be for the public sector to take responsibility for building out the storage capacity we need. Capacity could then be built out strategically, with asset location based on what makes sense for the system-at-large. NESO could be given the freedom to utilise the assets in the public interest, reducing the cost of balancing the system and providing a mechanism to reprofile renewable generation in a way that does not increase costs for consumers.

The cost of a public sector storage build out would not be prohibitive. Ember recently estimated, for markets outside of China and

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46 Financial Times, 'Electricity 'reselling' adds £99mn to consumer bills', 21 June 2026; for a breakdown of the monthly cost see Figure 6 in Ofgem, 'Repetitive Re-trading (RRT) by electricity storage in transmission constraint periods', 19 July 2026.

47 NESO, 'Connections Reform Results', accessed 23 July 2026.

48 EDF Energy, 'Blog: P462 Explained - Impacts, Opportunities, and What's Next in the Balancing Mechanism Reform', 3 July 2025.

the US, the all-in project capex for BESS to be $125/kWh.[49] At current exchange rates, at the time of writing, this amounts to approximately £94m per GWh of storage. The Climate Change Committee (CCC) estimates that the UK will need 139GWh of storage capacity by 2050.[50] Therefore, total upfront capex costs for installing all of the battery storage we need for a Net Zero compatible energy system would be something in the region of £13bn. We might want to front load some of this, but spread over 24 years out to 2050, this would amount to an average of £550m per year. Although these costs could end-up being even lower if the cost of battery systems continues to decline, as it has done in recent years.

To put this in context, the average revenue in the year to May 2026 for battery storage systems was £62k per MW per year.[51] This means that consumers are already paying approximately £446m each year for the 7.2GW / 11.8 GWh capacity we already have and would end up paying something like £2.2bn per year if we hit the CCC's target of 35GW / 139GWh by 2050.[52]

Similar to the logic outlined for purchasing the gas power plants, it would be far cheaper for consumers to fund the deployment of the battery storage capacity we need, and have them owned and operated in the public interest, than it would be to continue with the current approach of de-risking private investment in storage with a series of generous revenue streams.

There would, of course, be a small annual cost to operating this storage capacity. However, Ember estimates this to only be something like 2% of total capex costs per year.[53] Although such costs would also be likely to fall further under the proposed model, as there would be efficiency gains from having the assets owned and maintained by a single organisation and having all operational decisions outsourced to NESO.

It is possible that storage assets would be utilised more frequently by NESO under this proposed model, compared to the current model whereby they have pay the private owners of storage assets each time they use utilise their capacity. This would likely mean that the assets would degrade faster and need replacing more frequently, but the more NESO are able to utilise them to reprofile cheap electricity, the more consumers will benefit. Replacing the assets more frequently would, therefore, very much be a cost worth bearing.

49 Ember, 'How cheap is battery storage?', 11 December 2025.
50 Climate Change Committee, 'The Seventh Carbon Budget', 26 February 2026.
51 Modo Energy, 'GB BESS revenues rise to £70k/MW/year in June 2026', 2 July 2026.
52 Modo Energy, 'GB BESS buildout Q1 2026: fleet reaches 7.2 GW', 10 April 2026.
53 Ember, 'How cheap is battery storage?', 11 December 2025.


Solution 3:
Strategically deployed renewables and nuclear

This briefing has highlighted the issues associated with the UK's renewables rollout so far, explaining why it has not lowered costs for end-users. It has the promise to do so, if deployed in the right way, but it must be complemented by appropriate generation and storage technologies which complement renewables and compensate for their intermittency.

The above two sections focussed on dispatchable power and storage, which are vital in terms of securing supply and balancing the system. However, in a decarbonised and affordable power system, dispatchable hydrogen power and storage should ultimately have relatively small roles, rather than being workhorse technologies.

The two technologies which can be workhorses and, together, provide the vast majority of power are renewables and nuclear power. This section outlines how the strategic deployment of these two technologies can contribute to the delivery of clean, affordable power.

Nuclear

Just like renewables have a reputation for being inherently cheap, nuclear has a reputation of being inherently expensive. However, as explained, renewables are not as cheap as they initially appear, due to the wider system costs they create. The opposite is true of nuclear: due to its wider system benefits, it is not as expensive as it initially appears.

This is because, while nuclear power stations can be complex and costly to build, once built, they provide extremely valuable baseload power for very long periods of time, with very low operating costs. A significant amount of nuclear capacity effectively ensures that there is a floor for power generation, regardless of whether renewables are generating or not, which reduces the need to rely on dispatchable power solutions which have comparatively high operating costs.

The value of having significant nuclear generation capacity is clear if you look across Europe and compare countries with higher and lower electricity prices. For example, the countries which have higher shares of nuclear as part of their generation mix, such as France and Spain, consistently have lower wholesale prices than countries without nuclear like Germany and Italy.[54] This is not necessarily only due to nuclear, but it is clear that Germany and Italy rely more to a far greater extent on unabated gas and coal, which has proven to be a more expensive strategy over the long-run, even if the coal and

54 For visual summary of wholesale prices for these countries see Institute for Energy Economics and Financial Analysis, 'Europe's electricity prices are still tied to gas, making geopolitics a structural vulnerability', 20 April 2026; data regarding the reliance of these countries on different generation technologies can be found through the International Energy Agency's 'Countries & Regions' database.

gas plants are comparatively cheaper to build in the short-run.

Germany provides a stark example of the consequences for decarbonisation and affordability of turning away from nuclear: after turning off all of its nuclear power plants, Germany has resorted to building new gas power stations and importing large amounts of (often nuclear generated) electricity from its neighbours, all while it remains the biggest coal producer in the EU.[55] What is more striking is the fact that Germany generates more renewable electricity than any other country in Europe.[56] The lesson is effectively the same as for the UK: you cannot simply build out renewables and assume this will lead to cheap electricity; you also need to think about the technologies which will provide security of supply.

The UK is in a better position than Germany, in that is has a residual nuclear fleet—approximately 5.9GW worth of capacity—and is now building two large-scale nuclear power stations—Hinkley Point C and Sizewell C—and is beginning the process of building Small Modular Reactors (SMRs) at Wylfa, which will provide additional grid-scale nuclear capacity, although it is yet to be decided how many SMR units will be built at that site.

However, even if things go as smoothly as can be reasonably expected, the majority of our existing fleet will go offline before the new build projects come online. Additionally, even when they do come online, the projects will still make up a fairly small amount of our generation mix because electricity demand will keep growing as we electrify to decarbonise over the coming decades.

Therefore, we still need significantly more capacity if we are to have a high floor of baseload nuclear power and reduce the need to rely on comparatively more expensive dispatchable technologies for baseload power. The Climate Change Committee's balanced pathway assumption is for 11GW of nuclear by 2050, whereas the Conservative government's 2024 Civil Nuclear Roadmap set a target of 24GW, such that nuclear would provide around a quarter of our electricity by 2050.[57] We suggest that the 11GW should be understood as an absolute minimum, and the closer we can get to 24GW the better.

Moreover, not only will the system benefits be greater the closer we get to 24GW, pursuing that more ambitious target has the potential to actually make the most expensive of part of nuclear—getting the stations built—cheaper.

55 Politico, 'After scrapping nuclear reactors, Germany to spend billions on new gas power plants', 5 February 2024; Bild, 'Germany imports nuclear power like never before!', 4 January 2025.

56 Ember, 'Germany', 14 April 2026.

57 Climate Change Committee, 'The Seventh Carbon Budget: Advice for the UK Government', February 2025, p 209; Department for Energy Security and Net Zero, 'Civil Nuclear: Roadmap to 2050', January 2024.

The UK's approach, of developing and approving nuclear mega-projects one at a time, after decades of not building any new nuclear at all, has sadly and predictably, not proved particularly efficient or cost-effective. We have painfully rebuilt our nuclear skills based through the Hinkley Point C (HPC) project. Sizewell C should be more straightforward, given that is a near replica of HPC and learnings will be applied from that project.

Nevertheless, this represents the deployment of only four reactor units at two stations. The evidence is clear that countries which pursue a fleet-model are able to build nuclear comparatively affordably. For example, in South Korea, rather than building one plant at a time, they build 8-12 reactors in a row, with the economies of scale this brings significantly reducing costs. South Korea is thus able to build nuclear plants at roughly a quarter of the cost it takes to build in Britan.[58] Even France, whose reactor design we are copying, has been able to build the same stations for effectively half the cost.[59]

Setting out the rationale for and contents of a proper nuclear strategy and buildout programme in detail would require a briefing of its own. For the purposes of this briefing though, it is worth simply highlighting the fact that nuclear power is extremely valuable from a systems perspective and building a large fleet of standardised reactors over the coming decades, is vital if we are to have a chance of fully decarbonising our generation mix in an affordable way.

Renewables

The issues with how we have built out renewables have been outlined in the first section of this paper. The government has offered generous revenue guarantees for per unit of electricity generated, but this has simply incentivised the building of projects in areas most conducive for generation, regardless of the consequences for the system at large. The buildout was not combined with simultaneous investment in storage systems or the transmission network, which has meant that the system cannot effectively make use of a large portion of the electricity which renewables projects do generate.

In addition to this, the per unit cost advantage of offshore wind has been dissipating over recent years. Contract for Difference strike prices (i.e. the revenue guaranteed per unit) were on a downwards trajectory up until Allocation Round 5 in 2023, when no offshore wind projects were awarded contracts.[60] The failure of this

58 Britain Remade, 'Britain is one of the most expensive places in the world to build new nuclear', 4 December 2023.

59 As above.

60 Department for Energy Security and Net Zero, 'Contracts for Difference Allocation Round 5 results', 8 September 2023.

auction round was highly remarked on at the time, with industry figures citing increased capital and supply chains, suggesting that the government would need to increase the budget for the auction round and, effectively, offer a higher strike price.

Since coming to power in 2024, the current government has increased the CfD budget. This has been an apparent success in the sense of getting private investors to commit to building out more capacity, but it comes at a cost. The last round of CfDs, awarded in January 2026, guarantees generators a strike price of £91.2/MWh, which is higher than the average wholesale price prior to the conflict in Iran, and scarcely much lower than the immediate post-conflict price. In practice, this means that if these projects got up and running tomorrow, they would barely have a dampening effect on wholesale prices when generating. Of course, they would not be having any effect at all when they are not generating and other technologies are having to make-up the shortfall.

This underlines the difficulties that arise when 'clean' is automatically assumed to be 'cheap'. The Clean Power 2030 mission is being pursued on the basis that moving to homegrown clean power will be cheaper, and the sooner we can get there the better. But to get adequate amounts of offshore wind in the pipeline to achieve this mission, the government is committing billpayers to paying per unit costs which do not appear cheap even before the wider system costs of the intermittency of the technology are taken into account.

As argued, renewables can and should have an important role to play in the UK's power generation mix; they should be a workhorse technology alongside nuclear. However, they need to be deployed in a more strategic way so they do not put such a burden on the system. Rather than trying to build a certain amount of a particular technology or trying to approve whatever projects private developers bring forward just because they are 'clean', we should plan our energy system in a more strategic way, starting with an analysis of what makes sense for the system.

Strategic energy planning

Strategically planning our electricity network would, by design, reduce system costs, and NESO is currently developing blueprints to do just that, with a 'Strategic Spatial Energy Plan' and 'Centralised Strategic Network Plan'. The former, will outline the generation capacity we should be building in different parts of the country, and the latter will outline the investment in the transmission network that is required, if we are to transition to a fully decarbonised, secure and affordable power system by 2050.

This kind of strategic planning has the potential to move us towards a more rational and efficient energy system. However, if this is to work, there needs to be realism about how it will actually be delivered. We cannot expect that the private sector will step forward to deliver these plans just because NESO have said it is what we should do. Private investment decisions are based around expected profitability, not system efficiency. There will be privately funded generation projects that broadly align with what makes sense for the system, but there will also be parts of the country or particular generation technologies which are less attractive to private investors.

The Department for Energy Security & Net Zero have consulted on policy levers to incentivise delivery of the plan, but all of the policy levers considered are effectively about how to encourage the private sector to fulfil the plan.[61] The decarbonisation trilemma is not explicitly addressed, but given that the premise of the whole plan is to deliver a speedy transition, and all policy levers are essentially about encouraging private investment, the sacrificial lamb is affordability.

Private investors will only come forward to complete the plan in full if they are compensated accordingly. Given that we are already having to offer very generous revenue guarantees, when developers have their pick of where they can build, we should be under no illusions about how expensive it will be to incentivise the private sector to fulfil the plan in its entirety. If we commit to paying the private sector whatever it takes to build out all the clean generation assets we need, then we are effectively ruling out the possibility of structurally lower electricity prices.

The solution is clear and has already been hinted at in government planning documents: the government's publicly owned clean energy company, Great British Energy, should have a formal role in making sure NESO plans are fulfilled.[62] Where the private sector comes forward with plan-aligned proposals to build generation assets at affordable cost, they should proceed. Where no such proposals are forthcoming, or proposals are forthcoming but at unreasonable cost, GBE should pick up the slack. This could mean partnering with private developers, to make projects more commercially viable, however, it should also mean directly investing, with GBE owning and operating assets itself. Renewable generation projects fall within GBE's remit, and GBE's sister organisation, Great British Energy-Nuclear (GBE-N), is well-placed to drive nuclear deployment.

The investments that these organisations make will be revenue generating.

As they are public organisations, GBE and GBE-N will have a lower cost of capital than

61 Department for Energy Security & Net Zero, 'Reformed National Pricing delivery plan: Chapter 2 - Siting and Investment Levers', 21 April 2026.

62 Department for Energy Security & Net Zero, 'Clean Power 2030 Action Plan', December 2024, p 77.

private organisations and do not need to target a specific rate of return on their investment.[63] Taken together, this means that these organisations will have the scope to make investments that are not profitable enough for the private sector to make, meaning they will be able to ensure NESO's strategic plans are fulfilled. The investments will generate revenue, but because they can be funded comparatively cheaply and a return on the investment does not need to be generated—beyond the initial cost of borrowing—costs can be held down for end-users.[64]

Given that the investments will be revenue generating, GBE and GBE-N need not place a fiscal burden on the government. Both organisations have operational independence, and if provided with commercial borrowing powers, they could borrow independently from financial markets, slowly paying back their liabilities as their assets generate revenue over time.[65]

It would be a significant undertaking for GBE and GBE-N to take on responsibility for fulfilling NESO plans. However, it is important to remain cognisant of the alternative. If we do not have public bodies like GBE and GBE-N stepping up to make these investments, then we will (a) have to pay significant amounts to private developers to make the same investments, or (b) accept that we are not going to move to a decarbonised and efficiently planned power system any time soon.

This does not mean that the private sector does not have a major role to play. It does. Indeed, much of the capability and technical expertise we need to deliver the required generation assets is contained within the private sector. However, it is important to recognise the incentives that private companies and private investors face are not necessarily aligned with the strategic needs of the wider system, and that a greater level of public control over the deployment of generation assets is going to be necessary if we are to build a more rational, efficient and affordable system.

63 For detailed analysis of these advantages see Common Wealth, 'The Greatest Generation: How Public Power Can Deliver Net Zero Faster, Fairer and Cheaper', 12 February 2024.

64 For example, the government has invested significant capital in Sizewell C but has agreed to recycle the supposed return on that investment to consumers.

65 The scaling up of these organisations, however, will likely depending on reforming the fiscal rules so that the debt of revenue generating, self-financing public corporations is not recognised in the same category as government debt more generally and does not eat up valuable headroom against the government's fiscal rules. For a detailed analysis of this issue see Mainstream, 'The Productive State: A Framework for Manchesterism', 21 June 2026.

Conclusion

As this briefing has outlined, the current way we plan, build, finance and operate generation assets is incompatible with a quick and affordable transition to a clean power. It is a mistake to assume that 'clean equals cheap'. Clean could equal cheap, but this is contingent on various factors, and significant public intervention is required going forwards if we are to capitalise on the promise of homegrown, clean power.

The public interventions proposed here are not, in reality, significant due to their cost. As outlined, it is our current way of doing things that is most costly. Even if everything proposed in this paper was funded via levies on bills, consumers would still be better off, given the cost of the status quo. Instead, the most significant aspect of these proposals would be committing to a new understanding of how affordable energy is delivered.

The Prime Minister has spoken about ending 40-years of neoliberalism, and it is clear that the application of the neoliberal logic to the electricity sector is behind many of the problems analysed in this paper. Our recent experiences should drive home the lesson that power generation is ill-suited to having a market-logic imposed upon it. Indeed, the fact generation assets have to be de-risked and subsidised to the extent that they are demonstrates this.

The more fundamental neoliberal assumptions that need to be broken with are the assumptions that private is necessarily more efficient than public and that making companies and projects investible propositions for private capital is all that government, or the public sector needs to do.

We have made the UK power sector an investors paradise, but this has not delivered a well-planned fleet of generation assets, quite the reverse. Moreover, private capital is now able to exploit this inefficiency with the rise of (heavily subsidised) storage assets, where market-based logics are clearly increasing rather than decreasing costs for consumers.

More efficient outcomes and more affordable electricity bills depend on committing to a new understanding of what efficient delivery looks like. At the heart of that understanding should be the principle that we need a much a greater level of public control of generation assets, particularly those with the largest impact on wholesale prices, and that assets should be planned and built in a strategic way. This is what our three solutions are designed to achieve.

To summarise:

- We are not going to be able reduce electricity prices if we do not have public control over the assets which provide security of supply. As well as taking control of the high-carbon generation technologies which provide security of supply today, we must start investing in the low-carbon dispatchable technologies which are going to provide security of supply into the future.

- Direct public investment in and ownership of storage capacity is a no-brainer. It will be far cheaper than the costs associated with de-risking private investment in storage assets, and it will give the energy system operator, NESO, a vital tool in helping balance the system in a more affordable way.

- Private investment in renewables and nuclear has a vital role to play, but we need to be more directive with the private sector in terms of what needs to be built and where, to ensure we build a system which makes sense as a whole. Where the private sector is reluctant to align with the strategic needs of the system, organisations like GBE and GBE-N should pick up the slack and start building, owning and operating assets themselves.

These are not the only interventions that we need to create affordable, secure and clean power system, but they are good place to start.

Prospect is a trade union representing over 160,000 people across the UK in roles as diverse as air traffic controllers, scientists, engineers, civil servants and digital experts. In the energy sector, Prospect represents tens of thousands of workers across nuclear, renewables, transmission, distributions, and within public sector energy bodies. Our organisation also incorporates Bectu – the sector of our union that supports people working in broadcasting, film and cinema, independent production, theatre and entertainment.

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