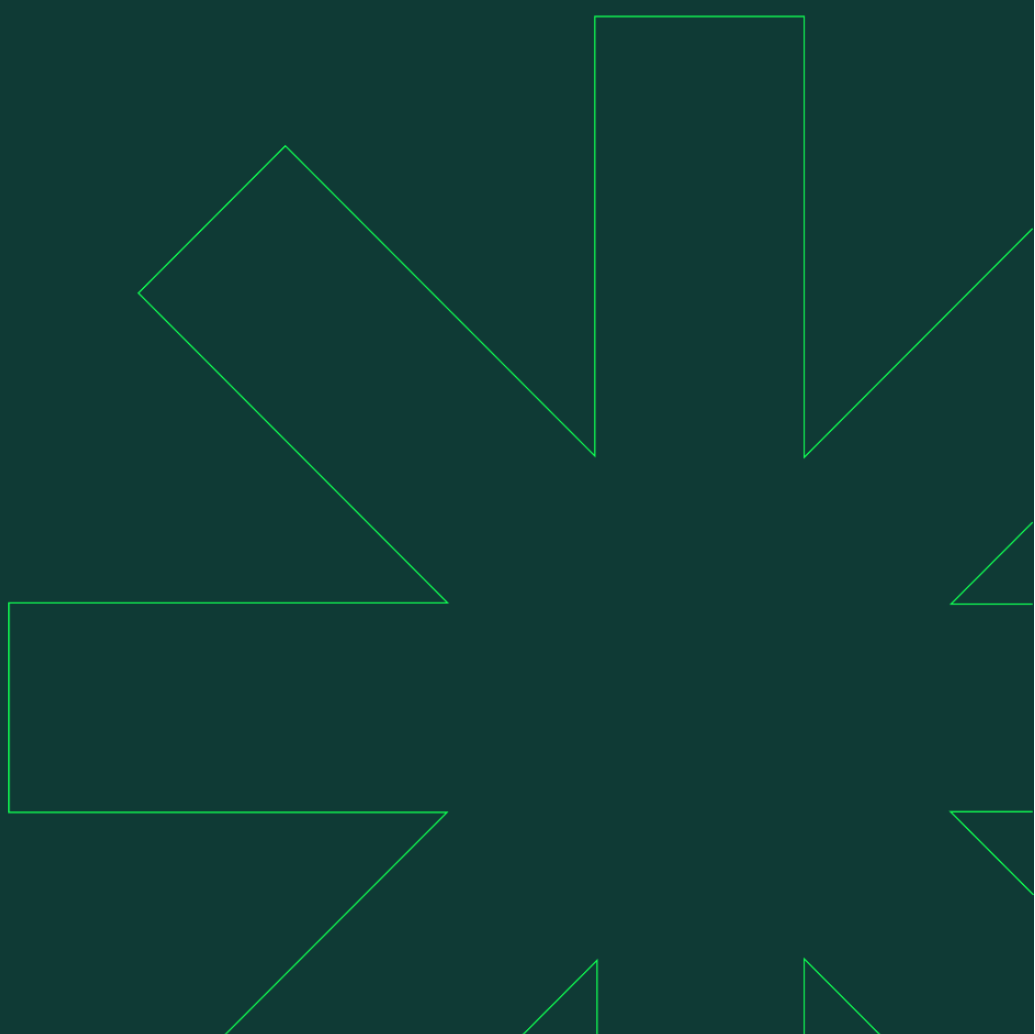


Power to the People

A Plan to Give Power to the Market and
the People to Fix our Energy Sector

June 2026

STARTUP
C*ALITION



Authors

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About Startup Coalition

Startup Coalition, formerly the Coalition for a Digital Economy (Coadec), is an independent advocacy group that serves as the policy voice for Britain's technology-led startups and scaleups. Startup Coalition was founded in 2010 by Mike Butcher, former Editor-at-Large of technology news publisher TechCrunch, and Jeff Lynn, Chairman and Co-Founder of online investment platform Seedrs. Startup Coalition works across a broad range of policy areas that matter the most to startups and scaleups: access to talent, access to finance & regulation.

Methodology

The findings in this report are drawn from polling commissioned by Startup Coalition and conducted by Public First, which surveyed 2,026 UK adults online in May 2026. Results from the nationally representative survey are weighted using Iterative Proportional Fitting ('Raking'), with weights applied by interlocking age and gender, region, and social grade to nationally representative proportions. Unless otherwise footnoted, all polling figures cited in this report are drawn from this research.

Executive Summary

In July 2026 the typical British energy bill rises to £1,862, a 13% jump and the sharpest summer increase in four years. It is the latest reminder that Britain heats its homes and sets its electricity price with imported gas, and that every household pays for the exposure: bills remain 35% above their pre-crisis level, 79% of people report at least one negative consequence from their energy costs over the past year, and 76% believe the economy cannot grow while energy stays expensive. Beneath the headline price sits a second, quieter distortion: the levies that fund the transition fall overwhelmingly on electricity rather than gas, a reverse carbon tax that makes the cleaner fuel the dearer one.

Public trust in the Government to fix this is split exactly down the middle, 37% trust against 37% who do not, and most people feel shut out of the debate entirely. 56% say the conversation dwells on things beyond their control, like wind farms and bill taxes, rather than on what they themselves could do. That sense of exclusion is the prism through which every reform in this report must be read.

There is no anti-net-zero public in Britain, only a public opposed to a transition that asks them to pay without paying them back. Support for the 2050 target swings by up to 66 points depending on framing: it collapses by 39 points when presented as an unspecified cost to taxpayers, and surges by 21 to 27 points when framed around lower bills, British jobs, and energy independence. And the dominant public definition of energy independence, chosen by 49%, is supply-side and patriotic: a Britain that generates its own energy. The public rejects green austerity and embraces energy abundance.

This leads to two distinct agendas designed to shift the dial and deliver affordable energy abundance, in the short term.

First, we must give power back to the market.

The state will always have an indispensable role in energy, guaranteeing security of supply, building the shared infrastructure no single firm will, and setting the rules of the market. But it has met the energy challenge with a reflex to centralise, which has accelerated under the Labour Government: to administer where it could price, and to plan where it could enable. That reflex is slow and expensive, and nowhere is the bill more visible than curtailment. Britain paid over £1bn last year to switch wind farms off, with balancing costs projected to reach £4-8bn by 2030; 55% of the public were unaware this happens, and 42% were angry once told. The answer is not as simple as just “less state”, but a state that builds the rails and lets the market run on them.

We propose three market mechanisms to fix this: 1) convene temporary curtailment markets that route would-be-wasted power to energy-intensive innovators; 2) auction grid connections, so scarce capacity goes to those who value it most and the proceeds fund network expansion; and 3) open 'use it or lose it' thermal headroom markets to unlock latent capacity without laying a metre of new cable.

Second, the Government must give power to the people.

The appetite for household energy technology is enormous in the UK and almost entirely unmet. 82% would adopt new energy technology if they could sell surplus electricity back to the grid. 35% would install plug-in solar against the 5% who own it today, a sevenfold latent demand gap. Two-thirds would

buy it if the kit were sold in Lidl or IKEA. But only 9% are on a time-of-use tariff that could save them money. One in four has no energy technology at all. Upfront cost is the dominant barrier at 45%, and one in eight non-adopters tried and failed to access a government scheme. Britain already has the £22bn EnergyTech startup sector to meet this demand; what it lacks is a government that has finished the job.

We propose five steps: 1) finish the legalisation of plug-in solar to a hard deadline; 2) legalise plug-in batteries and make domestic storage work, ending the double charge that taxes a home battery on power it only stores and re-releases; 3) give households a price worth responding to and the data to empower them to do so; 4) make the zero rate of VAT on decarbonisation technology permanent, outcomes-based and dynamic; and 5) give households a genuine choice of finance that removes the upfront cost.

Together these eight reforms share a single design principle, drawn directly from the public: Britons must benefit from energy policy directly, and soon.

It is time to give power to the market, and power to the people. A future of tech-enabled energy abundance awaits.

Part One: A Broken Market

The View From the Kitchen Table

On 27 May 2026, Ofgem announced that the energy price cap would rise by 13% from July, the sharpest summer increase in four years, taking the typical annual bill from £1,641 to £1,862.¹ The proximate cause was a surge in wholesale gas prices driven by conflict in the Middle East, but the deeper cause is structural: a decade of war, pandemic, inflation, and policy inertia has left Britain a country that heats its homes and sets its electricity price with imported gas, and every household pays for that exposure. Bills today remain 35% higher than in the winter of 2021/22, before the crisis began.

There is a second structural feature beneath the headline price. The social and environmental levies that fund the transition fall overwhelmingly on the electricity bill rather than the gas one, roughly four-fifths of the total, so the cleaner fuel carries the heavier policy load. The effect is a kind of reverse carbon tax, and it is part of why the electricity that households are increasingly asked to rely on stays stubbornly dear.

In our poll we asked respondents to identify the three things that frustrated them most about the energy sector, and the most popular single answer was that bills were too high (57%). The damage is not abstract: 79% of respondents reported at least one negative impact from their energy bills over the last twelve months. Women bear more of the cost than men: 51% of women had delayed putting the heating on, against 39% of men, and 22% of women had lost sleep over energy costs.

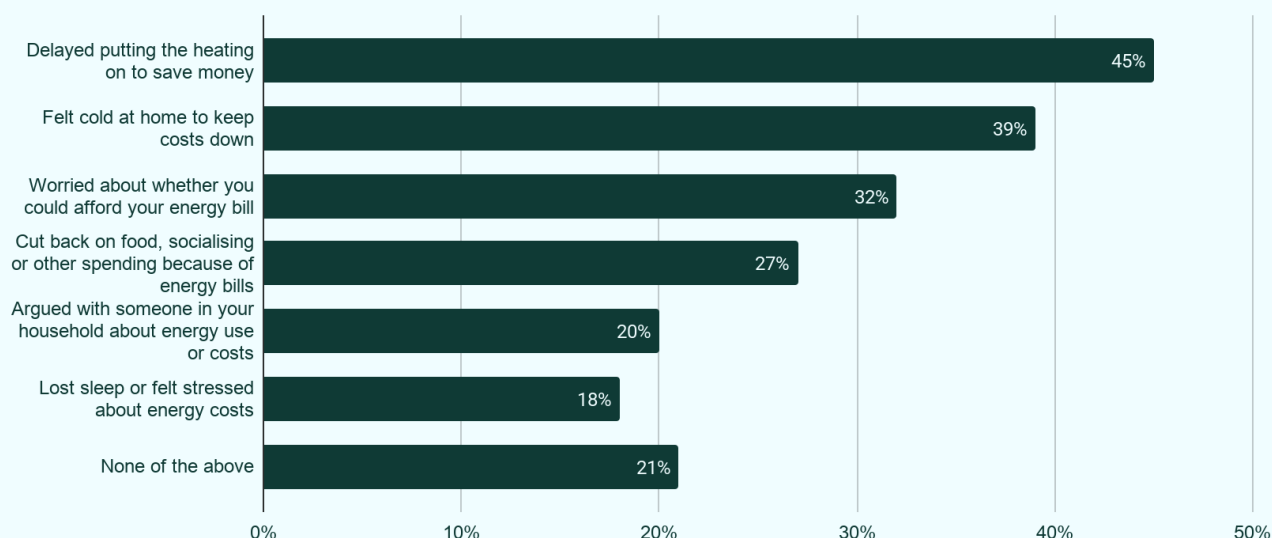


Figure 1, In the last 12 months, which of the following have you experienced because of your energy bills? Select all that apply

¹

<https://www.ofgem.gov.uk/information-consumers/energy-advice-households/energy-price-cap-unit-rates-and-standing-charges>

The public has a clear instinct here. Asked how the costs of transitioning to a clean and reliable energy system should be paid for, 65% want them met entirely or partly through general taxation rather than just bills, against just 15% who favour bills. The reverse carbon tax is not only inefficient but runs against what people think is fair. Rebalancing these costs off electricity is the logical endpoint, and a necessary one, though the design questions it raises sit beyond the scope of this report.

Sitting above the hardship is a brutal economic view: 76% of respondents agreed that the UK economy will struggle to grow if the cost of energy remains high. Across every region and political affiliation, Labour, Conservative, Liberal Democrat and Reform alike, the link between energy costs and national decline is agreed upon.

Whose Fault is It? And How Can it Be Fixed?

Asked who is most responsible for this mess, the public points squarely at the government and the energy suppliers. Asked who is most capable of fixing it, a different picture emerges: renewable energy companies and the regulator are both seen as more likely to fix the system than to have caused it, while oil and gas companies and international events attract more blame than credit for any solution.

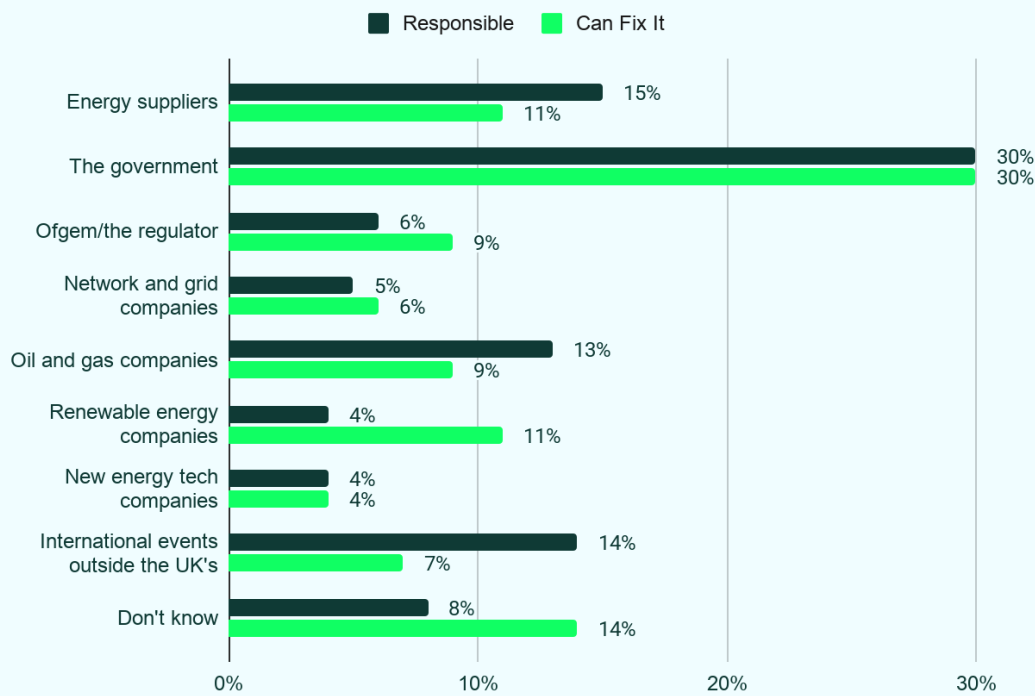


Figure 2, Which of the following groups do you think is most responsible for the current problems in the UK energy system?

The trust picture is stark. Asked whether they trust the government to make energy bills affordable, respondents split almost exactly: 37% agreed, 37% disagreed, 23% sat on the fence, one of the most evenly divided findings in the entire poll, and the prism through which every reform in this report must be viewed. Trust is also where we start to see a real divide based around voting intention. 57% of respondents intending to vote Labour in the polling trusted the Government to make energy bills more affordable, compared to only 31% of Reform voters.

More telling still is the sense of exclusion: 56% agreed that the energy conversation focuses too much on things outside their control, new wind farms, taxes on bills, and not enough on the steps they can take themselves. The public is telling the Government it feels locked out of a debate that affects it daily. Any reform that fails to give households visible agency will be received as another announcement from a distant Westminster.

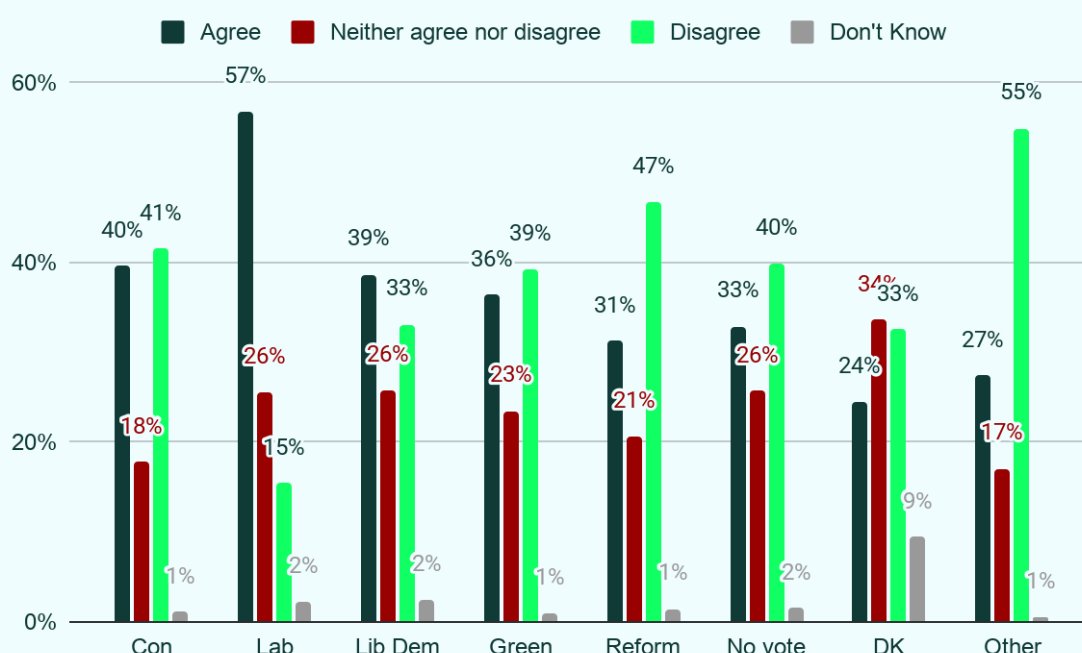


Figure 3, To what extent do you agree or disagree with the following statements?: I trust that the government is able to make energy bills affordable for households like mine

Reframing the Challenge Opportunity

The conventional story holds that the political consensus behind the 2050 net zero target has fragmented, and that the public is more divided than at any point since the target was set. Despite the frustration above, our polling tells a different story: the public's position is not fixed but dramatically responsive to framing, and the size of the swing should reshape how every party approaches the subject.

At baseline, the target remains net positive, with a majority (just) in favour: 51% support, 21% opposition, a net of +30. But ask the same question under different framings and support moves by up to 66

percentage points: framed as an unspecified short-term cost to taxpayers, support collapses by 39 points into negative territory. Framed as a route to lower bills, British jobs, or energy independence, it surges by 21 to 27 points.

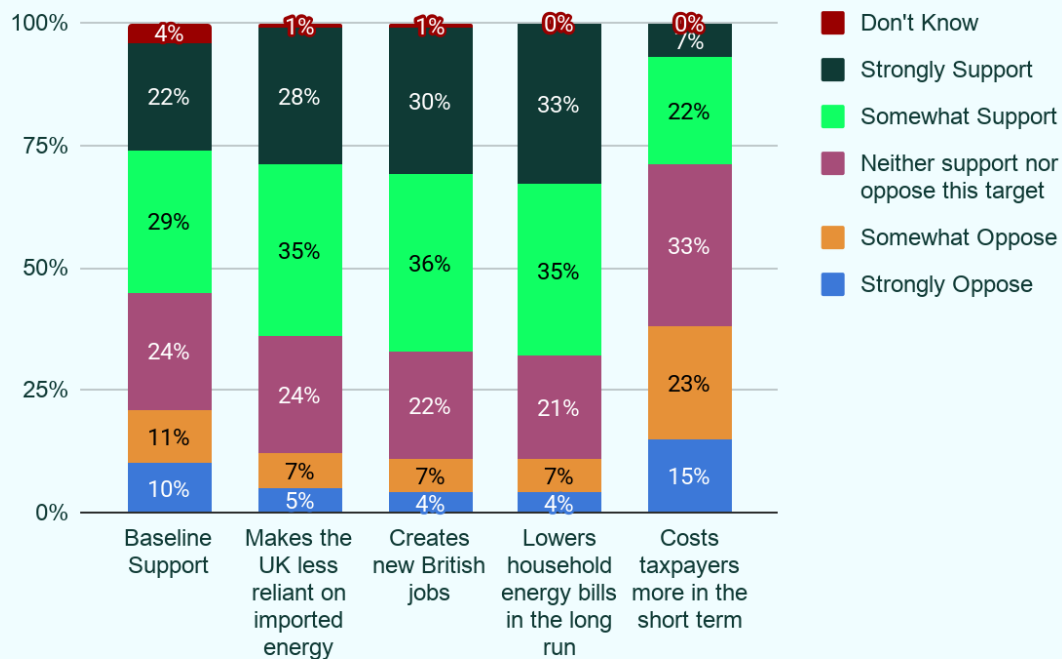


Figure 4, To what extent do you support the UK's target of reaching net zero carbon emissions by 2050?

The framing effect is largest among precisely the voters conventional wisdom writes off. Reform voters moved from -1 net support at baseline to +43 under the bills frame. Conservative voters moved from +16 to +61 under the independence frame. Over-65s moved from +10 to +67 under the same frame, a 57-point swing in a single demographic routinely treated as a lost cause.

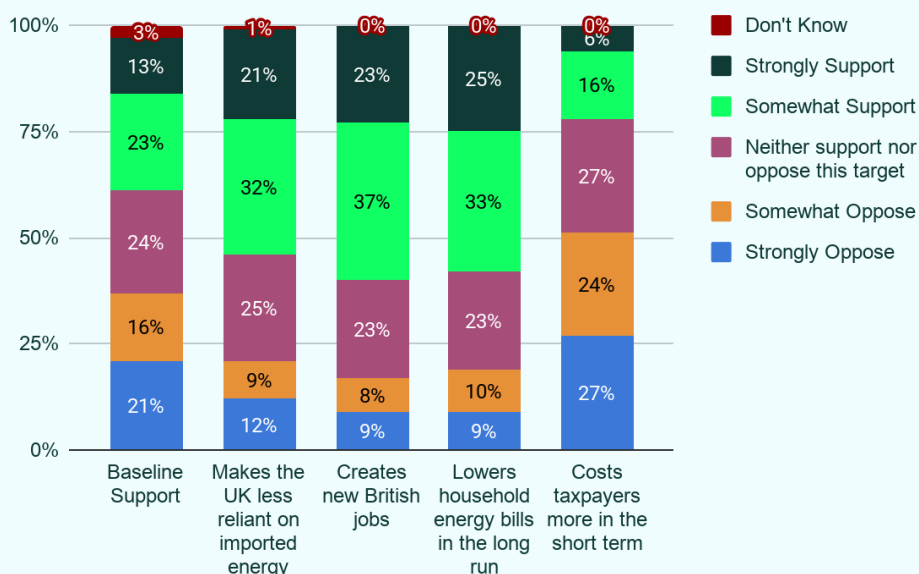


Figure 5, To what extent do you support the UK's target of reaching net zero carbon emissions by 2050? (Reform Voters Only)

We disaggregated what 'energy independence' actually means to the public. The dominant definition, chosen by 49%, is supply-side and patriotic: a Britain that generates its own energy. The framing exposes an irony. The 49% who want a Britain that generates its own power are describing an electrified system, yet today's bill structure penalises the electron, loading the costs of the transition onto electricity while leaving gas comparatively untouched. The public's stated preference and the price it actually faces point in opposite directions.

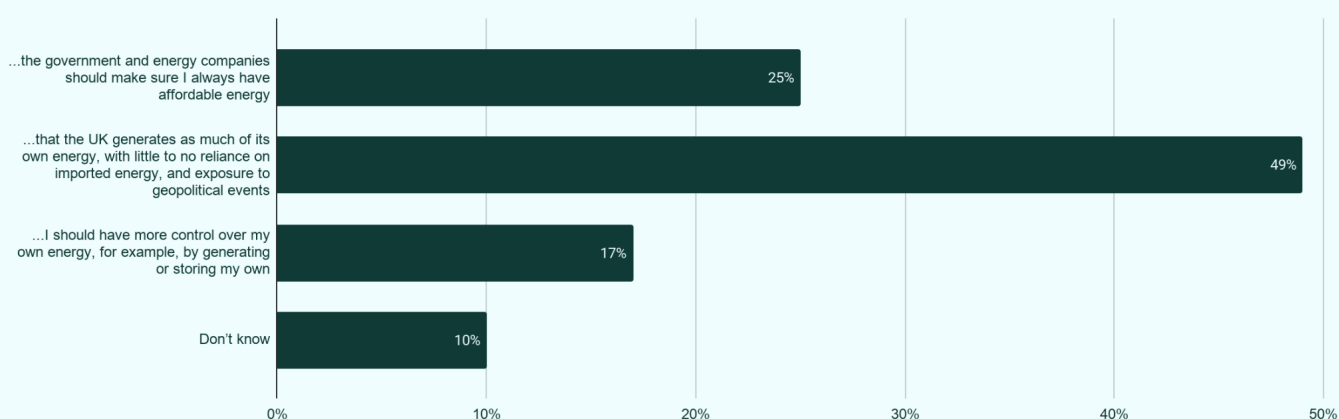


Figure 6, Energy Independence means...

There is no anti-net-zero or anti-renewables public in Britain; there is a public opposed to green austerity. This is a public that objects to a blank-cheque transition, but is enthusiastic about one that pays them back and makes the most of the energy we have in abundance. No message survives the taxpayer-cost frame, across any party, age group or social grade. That is the political wall that has stalled progress for

three years, and the design principle for everything in this report: **Brits want energy policies that deliver energy security and abundance in the short term.**

At Startup Coalition, this presents us with two clear agendas for the Government: the first is to urgently fix some of the underlying flaws of our energy system today by giving more power back to the market to deliver efficiency and lower costs. The second is to radically and rapidly equip households across the country with technology that cuts their energy bills. This paper will now address these two key ingredients.

Part Two: Power to the Market

The state will always have an indispensable role in energy. It alone can guarantee security of supply. It alone will build the majority of the shared, long-horizon infrastructure that no single firm has the incentive to fund. It sets and enforces the rules of the market, and it must act as planner of last resort for assets that take decades to build and pay back. Nothing in this report argues that the state should leave British energy supply to the market alone. But the British state must get better at using energy markets.

To date, the Government has met the energy challenge with a reflex to centralise. The newly created National Energy System Operator (NESO) now steers the country's energy future from a single vantage point. Great British Energy has been stood up as a state-owned body to coordinate and invest. Grid reviews run through NESO and the network owners. Connection queues are administered, reordered and prioritised by committee. Some of this is the state doing its proper job. But too often the instinct is to administer where the Government could price, and to plan where it could enable: to reach for the centralising tool first and the market tool last.

Take nuclear. In determining how to advance with novel small modular reactors (SMRs), the Government ran a two-year competition to confirm what most observers expected on day one: that Rolls-Royce, Britain's obvious engineering champion, would be the preferred bidder.² The state has a legitimate, even essential, role in backing new nuclear power, but picking a predictable single national champion through a slow, centralised selection, whilst neglecting building the foundations for a competitive market and a thriving startup ecosystem, feels short-sighted. It shouldn't be one or the other, but both at the same time. Today there are only a handful of nuclear fission startups in the UK, and they are all at a very early stage. John Fingleton's review of nuclear regulation is extremely welcome, and the Government must now deliver his recommendations as planned, but the approach to date has held back any chance of a thriving startup sector for many years.

The instinct shows up most consequentially in pricing. The single most seismic market choice of the parliament was zonal pricing, the reform that would have decentralised the price of electricity by design, letting it fall where power is abundant and rise where it is scarce. The Government's July 2025 REMA decision rejected it, choosing instead to retain a single national price and reform it from the centre.³ Reasonable people disagreed about zonal pricing, and the concerns about investor uncertainty and implementation time were viable to a degree. The effect of the decision, however, was to forgo the cleanest available locational signal, the market's own way of telling generation and demand where to go. As we set out below, some of that lost signal can be recovered by other means, but it now has to be engineered deliberately, rather than emerging from the price.

²

<https://www.gov.uk/government/publications/nuclear-justification-approved-for-rolls-royce-small-modular-reactor#full-publication-update-history>

³

<https://www.gov.uk/government/publications/review-of-electricity-market-arrangements-rema-summer-update-2025/review-of-electricity-market-arrangements-rema-summer-update-2025-accessible-webpage>

The same instinct shows in how the costs of policy are recovered. The levies are loaded almost entirely onto electricity, a charge that bears no relation to when or where power is used, sitting on top of every cost-reflective signal the system might otherwise send. It is a planned price laid over a market one.

This reflex to centralise has come at a price. The approach has been inefficient and slow, and slowness is expensive, for taxpayers and billpayers alike.

The most effective state is not the one that does the most, but the one that acts the smartest, and we think that means the one that builds the rails on which markets run. The principle that should guide reform is simple: rules, not winners; enable, don't administer. Nowhere is the cost of forgetting it more visible than in constraint payments.

The Constraint Scandal

Last year, the UK paid over £1 billion to wind farms to switch off when the grid could not carry the energy they produced.⁴ These are constraint payments, funded by bill payers, to switch off green energy. As the country builds renewable generation faster than the grid can carry it, or we develop the AI behind the scenes to more cleverly manage it, NESO projects annual balancing costs could reach £4-8bn by 2030.⁵ The public is largely in the dark that this is happening: 55% of respondents had no awareness of the practice before being told. Once informed, the reaction was sharp: 42% reacted with anger, describing it as 'outrageous' or a 'scandal'. The answer closest to the official line, that curtailment is an inevitable part of managing a complex system, captured just 10%.

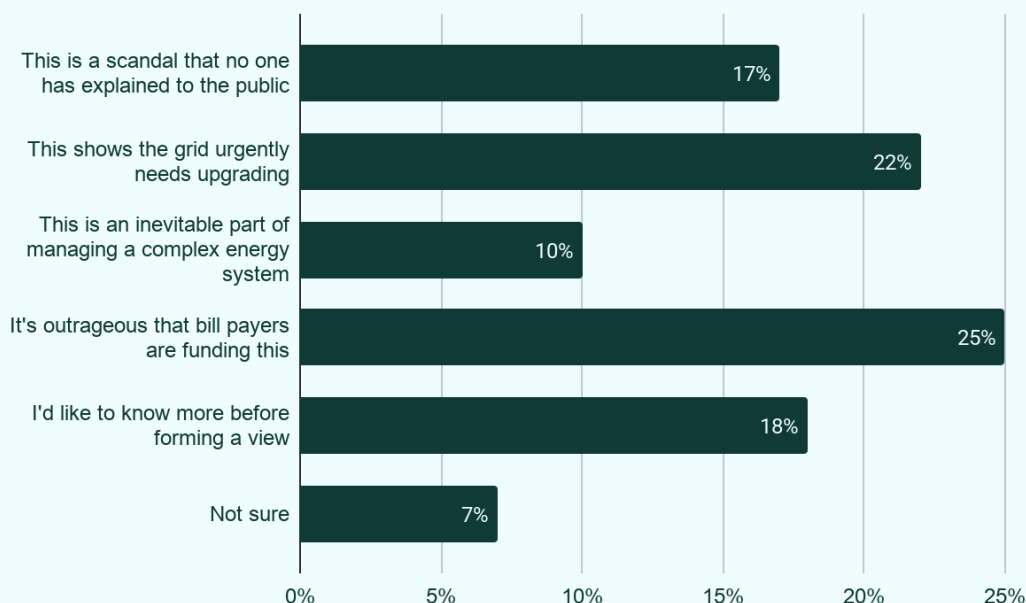


Figure 7, Sometimes when it's really windy, Britain produces more renewable electricity than the grid can move to households and businesses that need it. As a result, wind farms can be paid to switch off, while other power stations are paid to turn on in other parts of the country closer to where the energy is

⁴ <https://www.neso.energy/data-portal/constraint-breakdown>

⁵ <https://www.neso.energy/news/energy-explained-costs-balancing-britains-electricity-system-keep-you-powered>

needed. The cost of this is added to all household energy bills. Given this, which of the following comes closest to your view?

Now, it would be glib to pretend the public should be expected to understand curtailment. It would also be disingenuous to pretend that curtailment is, in itself, simply wrong, or that pursuing energy abundance via renewables has failed. It is evidence that wind power succeeded faster than the state built the grid to carry it. Some level of constraint is an unavoidable feature of any system in transition. The scandal is not that turbines exist, it is that successive governments have allowed grid build-out and smart network management to lag generation so badly that switching them off became a billion-pound line item on the nation's bills. The long-run answer is to build more wires, more storage, more interconnection, a more intelligent software layer enhanced by AI to manage load, and here the state's role is not in question. Only the state can manage, plan and underwrite transmission at this scale. The public gets this: 42% support building more grid infrastructure as the best response to curtailment.

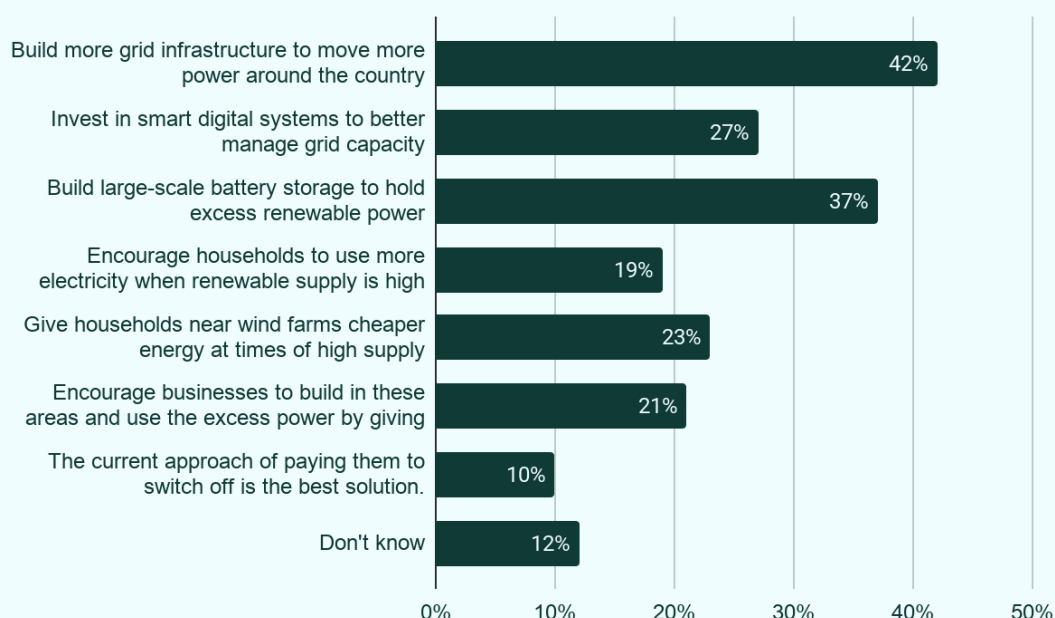


Figure 8, What do you think is the best way to tackle the problem of producing clean electricity that the grid can't currently handle? Please select up to three

But the grid takes years to build, and the surplus is being thrown away now, and that is a genuine scandal. We are wasting green energy. Here the Government should turn the narrative on its head. At the moments and places where wind is being curtailed, Britain has some of the cheapest electricity in Europe: power so abundant we pay to reject it. A country that talks endlessly about expensive energy is sitting on pockets of free energy and treating them as an embarrassment to be managed rather than an asset to be deployed. That is a scarcity mindset. The abundance mindset asks a different question: who could use this power, today, if we let them?

Free Energy for the Tech of the Future

For Startup Coalition, an answer could be Britain's energy-intensive innovators, the industries whose economics are defined by the price of electricity, and which the UK's high industrial power prices currently repel.

Consider the firms creating carbon-neutral hydrocarbon fuels, necessary for low-carbon transport, which face a brutal cost challenge because the underlying chemistry requires enormous amounts of energy, making their product too expensive to compete with conventional fossil fuels. Cheap curtailed power could remove that constraint, letting them accelerate the R&D that makes their product price-competitive in the long run. The same logic applies to other nascent energy-intensive industries: electric steel production, the training of AI models in data centres, vertical farming, even greenhouse gas removal. For these startups and scale-ups, electricity at zero or near-zero cost is not a subsidy but the difference between locating in Britain and locating somewhere else. Every megawatt-hour given to them is a megawatt-hour we currently pay to extinguish.

There is a deeper point here, and it speaks directly to the zonal pricing decision. Routing curtailed power to flexible demand co-located where the surplus arises is, in effect, a locational price signal achieved by other means, telling energy-hungry industries to build where the power is. It is precisely the behaviour zonal pricing was meant to incentivise through the market. Having chosen to keep a single national price, the Government foreclosed the cleanest version of that signal. Curtailment markets are how it can recover most of the benefit without reopening REMA.

The state's job here is not to pick the winners but to lay the groundwork for a competitive market for this power. The Government could coordinate access through a competitive application process if it wishes to give the power away for free, or through an auction if it wishes to cut the cost of constraint. Alongside this, the state could standardise curtailment-following supply contracts, fast-track connections for flexible loads behind constrained boundaries, and provide a transparent signal of where and when surplus arises. These markets should be explicitly temporary, scaffolding that scales up and shrinks as the grid catches up, but in the meantime they convert a £1bn embarrassment into an industrial recruitment tool. Even diverting a fraction of curtailed energy this way would be a significant win. Asked to pick their top three solutions to constraint payments, one in five respondents chose encouraging businesses to build in these areas and use the excess power in exchange for discounts on their energy bills, evidence of real public appetite for putting wasted power to work.

Britain, the country where clean energy is sometimes free, could be the place to build the world's energy intensive industries of the future.

Not Every Connection is Created Equal

A deeper problem is that Britain gives its grid away without understanding its true value. Connection capacity, the single scarcest asset in the energy system, is allocated administratively rather than priced. Historically, this was first-come-first-served, now it is rationed through readiness gates and strategic-importance lists drawn up by the centre. When a scarce thing is handed out below its value, two

things follow with total predictability. It gets hoarded by speculative projects with no intention of building, and it gets misallocated, because even the reformed approach weights towards timing of application, rather than who would create the most value from the megawatt. Reordering the queue by committee, however well-intentioned, simply replaces one administrative judgement with another.

There is a better instrument, and it is one the Government has already begun to flirt with in its consultation on connections for strategic demand: let users bid for scarce capacity.

Auctioning grid connections does two things at once. It allocates capacity to the projects that value it most and can deliver it soonest, revealing willingness to pay rather than guessing at it, and, critically, it turns connection access from a cost the network simply incurs into a revenue stream the network can earn. That revenue, recycled into the regulated asset base, directly expands the system's capacity to invest in the very wires, substations and storage that curtailment proves we are short of. A well-designed auction therefore closes the loop the current model leaves open: the scarcity that makes connections valuable becomes the funding that relieves the scarcity.

It is fair to ask whether auctioning capacity simply hands the grid to the deepest pockets, and in particular those building data centres. This is not only an inadvertent consequence, but the intention of the policy. These deep pockets should be funding increasing the capacity of the British state to build the infrastructure of energy abundance. For Startup Coalition, we wholeheartedly believe that the country needs more data centres. They provide firm demand on the grid to justify continued investment in electricity infrastructure: a form of “anchor tenant”.

By funding the expansion of the network, auctions grow the total pool of capacity available to everyone over time, including the businesses, large and small, that will need to connect in the years ahead. Pricing scarce capacity today is how Britain ends up with less scarcity tomorrow. Analysis has suggested that a single auction of grid connections could raise between £2.6bn and £12bn depending on its design, roughly enough to make up the shortfall in the Defence Investment Plan at the higher end.⁶ In the meantime, ensuring that Britain still builds the schools, hospitals and new towns that the Government wants to prioritise can be achieved through grandfathering in *some* allocation through ringfencing or adding in additional weighting into auction bids, such as jobs or social good metrics. This hybrid approach risks reproducing the broken system we have today, however, which must be avoided.

Sweat the Wires We Own

Auctions allocate the capacity Britain has on paper, but the final step is to find the capacity Britain has been too cautious to use. Grid substations frequently hold theoretical thermal headroom, spare capacity that exists in the models but sits idle because it is reserved for contingency or because the assumptions behind it are conservative. A formal market allowing flexible users to bid for access to this contingency headroom on a pre-emptible basis, accepting curtailment in exchange for earlier connection, with transparent pricing and clear protocols, would unlock substantial latent capacity without laying a single new cable, and could be operational within months rather than years.

⁶

https://robertboswall.substack.com/p/pricing-grid-connection-auctions?utm_campaign=post-expanded-share&utm_medium=web&triedRedirect=true

It is a more sophisticated instrument than today's blunt 'non-firm' connection arrangements, and a natural complement to the two reforms above: together they sweat the system Britain already owns while the system Britain needs is built. This is the abundance agenda in microcosm, and it is the rare agenda whose constituency spans the political spectrum, because the 49% who define energy independence as 'Britain generates its own energy' are describing, whether they know it or not, exactly what it delivers.

Three Steps to give Power to the Markets

The centralised model plans abundantly and prices barely at all, and the result is power we pay to throw away, capacity we hand out below its worth, and headroom we are too cautious to touch. Above, we have outlined three market mechanisms that would correct it:

Step One: Convene Temporary Curtailment Markets

Stand up, at pace, standardised mechanisms that route would-be-curtailed power to flexible, energy-intensive users for free or at deep discount, co-located or behind the constraint. Explicitly temporary scaffolding that shrinks as the grid catches up, turning a £1bn embarrassment into an industrial recruitment tool.

Step Two: Auction Grid Connections.

Make competitive auction the default mechanism for allocating scarce connection capacity for large demand, replacing administrative queues and reordering. Ring-fence the proceeds for network reinforcement, so that the value of access funds the expansion of access.

Step Three: Open 'Use it or Lose it' Thermal Headroom Markets.

Let flexible users bid for unused contingency headroom on the existing network on a pre-emptible basis, with transparent pricing and clear curtailment protocols, unlocking latent capacity in months, without a metre of new cable.

Part Three: Power to the People

We have already established that the Great British public reject green austerity, and demand affordable energy abundance. In addition, as part of our poll, we asked Brits whether they thought that the energy debate focuses too much on things that are outside of their control, like building new windfarms or changing taxes on bills, and not enough on the steps they can take to lower their energy bills. 56% agreed, and only 12% disagreed.

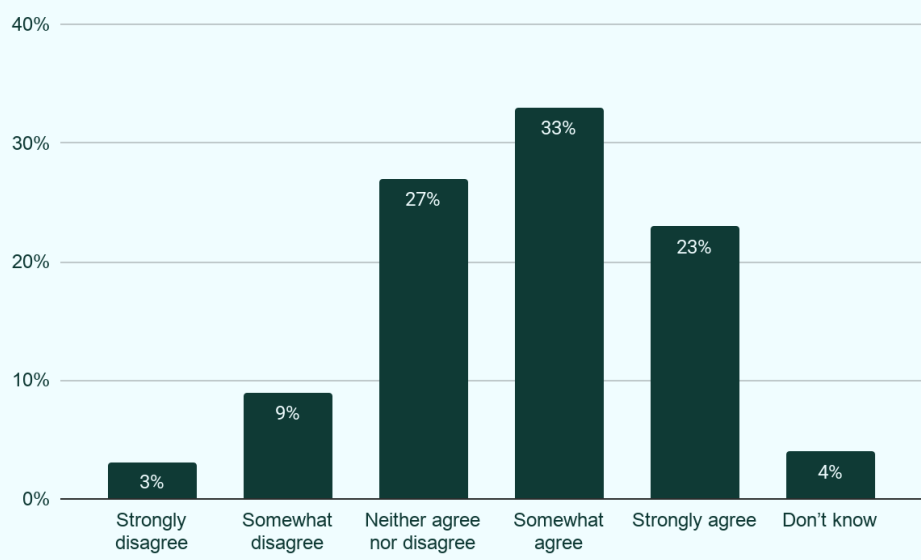


Figure 9, To what extent do you agree or disagree with the following statement? The energy debate focuses too much on things that are outside of my control - like building new windfarms or changing taxes on bills - and not enough on the steps I can take to lower my bills

What does empowerment look like in practice? One example is possibly the single most important finding in the dataset: asked how interested they would be in adopting new energy technologies if it meant they could sell excess electricity back to the grid, 82% of respondents expressed interest, while only 7% were not interested at all. This cuts across every demographic, a mass market, waiting for a legal framework that lets it exist. Only 9% are on a time-of-use tariff, despite smart meters now sitting in a majority of homes. Heat pumps remain a single-digit minority. One in five renters report being unable to make any changes to their homes at all, and 18% of all respondents do not even know where they would look to buy energy technology.

The same pattern holds for the products themselves. Whilst more than half of our respondents confirmed they had a Smart Meter installed, this is 15% less than the national figure for household installations

(71%), suggesting that some folks aren't aware they have one in their cupboard, ready to use.⁷ One in four Brits does not possess a single one of the energy technologies that we listed that could help them lower energy bills. Two thirds of Brits said they would buy energy technology if it were available at IKEA or in the middle aisle of Lidl. 35% say they would be likely to install plug-in solar, against 5% who own it today, a sevenfold latent demand gap. The most popular change respondents wanted to the energy market was access to cheaper prices at different times of day (21%), yet only 9% are on such a tariff. The mass market wants its energy technology the way it wants its desk lamp: in a box, with clear instructions, available this weekend, and saving money by Monday.

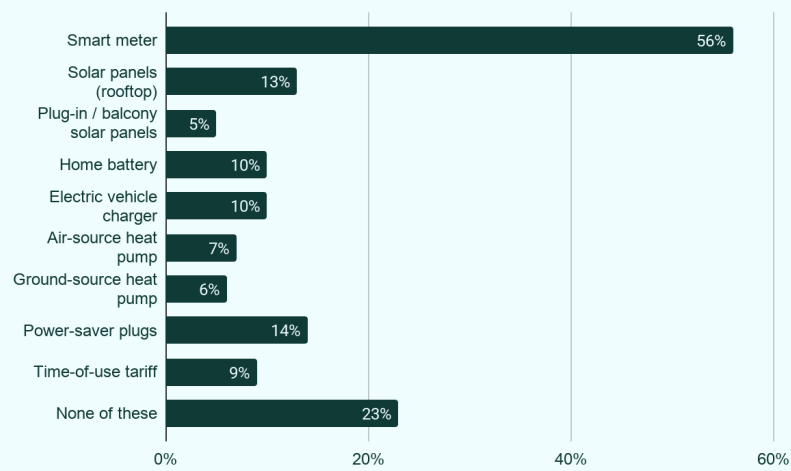


Figure 10, Which of the following, if any, do you currently have in your home? Select all that apply

The barriers to tech uptake are revealing. Upfront cost dominates, cited by 45%. 19% of those that have not adopted energy saving technologies are deliberately waiting, rising to 25% among self-identified early technology adopters, representing sophisticated consumers who have decided ‘not yet’. And most damning: 13% of non-adopters tried to access a grant or support scheme and could not, rising to 17% among 18-24 year olds and 15% among early adopters. These are not unaware citizens; they are engaged ones who attempted to participate in the Government’s own schemes and were rebuffed, a hidden policy failure that no published statistics currently capture.

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https://assets.publishing.service.gov.uk/media/69b80e30b84f01b2be53a2b1/Q4_2025_Smart_Meters_Statistics_Report.pdf

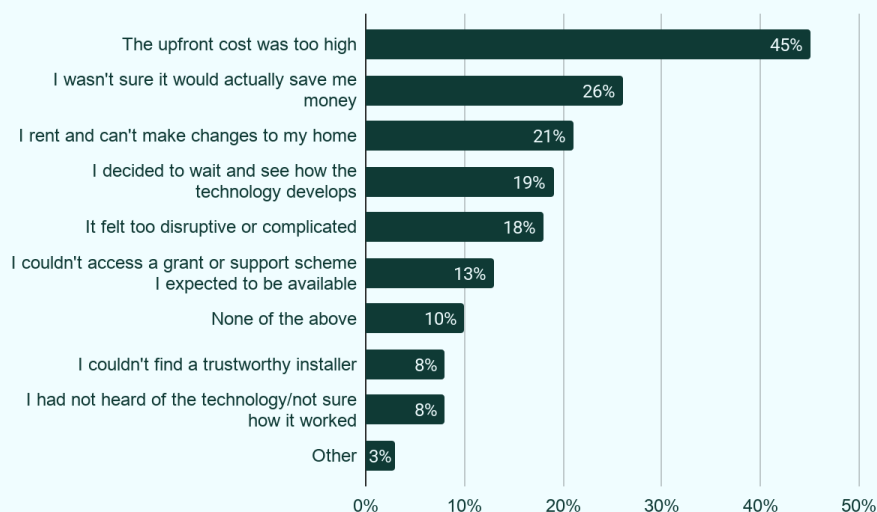


Figure 11, Which of the following are reasons why you haven't decided to install some home energy technologies? Select all that apply

To meet this pent up demand, we need companies to design the hardware, build the software, finance the installations, and compete for the customer. Fortunately there is a £22bn EnergyTech sector already delivering for British consumers, and ready to scale.

The UK's £22bn EnergyTech Sector

The UK is home to a booming sector of energy entrepreneurs. Combined, they have raised at least £10.5bn in capital, are worth a combined £22bn, and employ nearly 10,000 people across the UK.⁸ These firms are touching every part of the supply chain, from novel energy generation, to software that empowers households to understand their energy use and make smarter choices that help them cut bills.

Many of these startups and scale-ups are developing cutting edge devices, services and software that can cut domestic energy bills.

Nodi

Cambridge-based NODI Energy is building exactly the product Britain's grid needs yet its rules have not yet caught up with: a plug-in battery system that needs no electrician, no rewiring, and no planning permission. You plug it into a wall socket and it starts working, charging on cheap overnight electricity or surplus solar, then discharging when prices peak or the grid fails. It learns a household's usage automatically: no behaviour change and no learning curve. Crucially, it works for renters and movers as well as homeowners, with or without rooftop solar, reaching precisely the households that Britain's

⁸ https://api.startupcoalition.io/u/2026/06/ClimateTech-Index-2026_Final.pdf

installation-and-grant model leaves out. The same device also serves small commercial sites through a no-upfront-cost subscription model, removing the capital barrier that has kept energy storage out of SMEs entirely. Behind both customer segments sits a software layer that aggregates deployed units into a virtual power plant, turning a growing fleet of homes, flats, cafés, gyms and shops into dispatchable grid infrastructure.

NODI is a British answer to the German balcony-battery story but one whose path to market still depends on the plug-in battery legalisation and product standards this report calls for. The hardware is ready. The business model is clear, but the regulatory category is not.

Wondrwall

Manchester-based Wondrwall is the intelligence layer of the smart home. Its AI-powered system manages a household's battery, hot water, heating and EV charging together, deciding each day, based on the weather forecast, energy tariffs, and the household's learned routines, when to charge on cheap off-peak power, when to draw on stored energy, and when to sell solar back to the grid at peak prices. The result is a home that cuts bills and carbon automatically, without the occupant touching a setting. Consumers can retrofit Wondrwall Battery PowrPlan at no upfront cost, instead paying £35 per month to reduce their energy bills by up to £77. Battery PowrPlan with the Boiler Upgrade Scheme allows homeowners to replace their gas boilers with heat pumps, reducing their energy bills by £767 with a payback period of less than 5 years. It is a working demonstration of why the data and smart-tariff reforms in this report matter: technology like Wondrwall can only optimise against time-of-use pricing and real-time energy data, and the more households can access both, the more value firms like it can unlock. Wondrwall shows the case for the software and data rights that lets a home think for itself and cut household bills.

Fuse Energy

London-based Fuse Energy, founded in 2022 and currently valued at \$5bn, is the UK's fastest-growing hardware tech company: a vertically integrated supplier that generates and trades power, supplies more than 300,000 households and builds the smart energy hardware that goes into UK homes.⁹ Its next product is a solar and battery kit you simply plug in at home. This is residential solar and storage that arrives as a joined, easy-to-set-up unit. Where rooftop solar means surveys, scaffolding, electrical work, planning sign-off and weeks of disruption, the kit asks for none of it: plug it in and start generating.

The battery is the heart of the system. Solar generates during the day, when most homes use the least power. Without storage, much of what you make is wasted. The battery captures it, letting households use their own power in the evening, when they need it and when prices are highest, turning daytime sun into evening savings and a genuine buffer against volatile prices. The battery is what makes the savings substantial and gives the household real control over when it uses its own power. For Fuse's customers, they will have the option of paying for this unit with zero upfront costs. The savings the system makes cover its cost over time.

⁹ <https://www.thetimes.com/sunday-times-100-tech/hardware-league-table>

Plug-in solar can be made to work today, but plug-in batteries sit outside the regulatory work currently underway. Storage is exactly the part that delivers the savings, the resilience and the control. By leaving batteries out, the technology remains half-built; bringing them into scope does not need to be a lengthy process. In return, the UK gets one of its clearest growth and innovation stories with lower bills and households with real energy agency.

British EnergyTech founders are ready to deliver, but have so far been neglected by the UK Government.

Stuttering Policy

The Government committed Britain in 2025 to becoming a clean energy superpower, with genuine momentum on grid reform, planning, and renewable auctions. These macro-level system reforms are necessary, but insufficient. On the consumer side, the side households can see and feel, and the one that will ultimately determine votes at the next General Election, the record is one of delay and omission.

Take the £15bn Warm Homes Plan, billed as the key to increasing home efficiency, replacing the scandal-ridden ECO scheme, and paving the way for the next generation of innovative technologies. It was delayed amid rows over costs. Since it was published in January 2026, the DESNZ team delivering it has been gutted due to departmental cuts, and households have seen very little progress.¹⁰

Energy data, central to delivering smarter, more personalised products that can support bill reduction and efficient energy use, remains inaccessible. The Government has conducted a consultation on whether to introduce an open banking style Smart Data scheme in the energy sector, whereby households would be able to consent to share their energy data in real time with authorised third parties, but has so far not yet specified what it intends to do and when.¹¹

For the technologies already on the market, the Government has zero-rated VAT only until March next year, with no clarity on whether the exemptions will remain beyond that.¹² These exemptions apply to a specific, static list of technologies, and not to vanguard novel technologies that have not been deemed worthy by the Treasury, despite often offering better value to the taxpayer and a more efficient route to the same outcome of reduced energy use. In the case of heat batteries, we now have the farcical situation of the technology being eligible for subsidy under the Boiler Upgrade Scheme while VAT still applies, meaning the taxpayer is, in effect, merely paying back its own tax.¹³ This is as mad as it sounds, and it is the direct result of a list that rewards named products rather than measured outcomes.

Meanwhile, plug-in solar was promised a safety review in the June 2025 Solar Roadmap, and the review concluded the risks were manageable.¹⁴ The wiring regulations were amended in April 2026, and in June

¹⁰ <https://www.edie.net/desnz-staff-cuts-wont-undermine-clean-power-plans-says-ed-miliband/>

¹¹ <https://www.gov.uk/government/calls-for-evidence/developing-an-energy-smart-data-scheme>

¹² <https://www.gov.uk/guidance/vat-on-energy-saving-materials-and-heating-equipment-notice-7086>

¹³ <https://www.gov.uk/government/news/discounts-for-families-to-keep-warm-in-winter-and-cool-in-summer>

¹⁴ <https://www.gov.uk/government/publications/solar-roadmap>

2026 the Government went a step further, opening a consultation to amend the Plugs and Sockets Safety Regulations and adopt an interim product specification, the legal change that would finally let certified kits be sold for use in an ordinary wall socket, alongside a fresh independent safety study confirming the products are safe on UK domestic wiring.¹⁵ The consultation closes on 30 June, with decisions promised by 22 July, and major retailers including Amazon, B&Q and Currys have lined up behind it.¹⁶ This is genuine and welcome progress, but it stops half-way, with the draft rules explicitly excluding batteries. A similar safety study is urgently needed. Even on solar, certified products are still not on shelves and the product standard is unfinished; on storage, the work has not begun. Smart tariffs remain a minority product, and the data behind the meter that could empower households to make the most of time of use remains hoarded by quangos.

Case study: Germany's Balcony Solar Revolution... and its Ten Lost Years

For proof that household energy technology can become a genuine mass-market category, look at Germany. The Balkonkraftwerk, a couple of solar panels and a micro-inverter, hung off a balcony rail and plugged into an ordinary wall socket, passed one million registered systems in June 2025, double the figure of a year earlier, with around 135,000 new systems registered in the first four months of 2025 alone.¹⁷ Kits sell in supermarkets and DIY chains for a few hundred euros, install without an electrician, and pay for themselves in two to five years. Crucially, this is a renter's technology in a renter's country: with around 55% of German households renting, balcony solar succeeded precisely with the demographic, flat-dwellers, tenants, the young, that Britain's installation-and-grant model excludes, and that our polling identifies as some of the UK's most enthusiastic adopters.

But the German story carries two warnings as well as a promise. The first is about time. Balcony solar did not arrive overnight: it grew from a hobbyist movement in the mid-2010s, through an industry safety standard in 2017, to formal regulatory acceptance, and it took until the Solarpaket I reforms of May 2024 for the German state to finish the job, raising the inverter limit from 600W to 800W, cutting registration to five data fields, and removing the requirement for an electrician.¹⁸ Adoption exploded the moment friction was removed, the million-system milestone came barely a year later, but the journey from 'technically possible' to 'sold in Lidl' took the best part of a decade, most of it consumed by regulatory hesitation rather than engineering.

The second warning is about batteries. Storage is what converts balcony solar from a daytime saving into round-the-clock flexibility, and German consumers understood this faster than German regulators: one major manufacturer, EcoFlow, reported the share of its balcony systems sold with storage

¹⁵ <https://www.gov.uk/government/consultations/plug-in-solar>

¹⁶ <https://www.theguardian.com/money/2026/jun/16/retail-giants-join-uk-government-drive-to-boost-plug-in-balcony-solar-panels>

¹⁷ https://www.bundesnetzagentur.de/SharedDocs/Pressemitteilungen/EN/2026/20260108_EEG.html;

<https://www.heise.de/en/news/One-million-balcony-power-plants-in-Germany-10439636.html>

¹⁸ <https://www.bundeswirtschaftsministerium.de/Redaktion/DE/Artikel/Energie/solarpaket-1.html>

doubling from a fifth in 2023 to two-fifths in 2025, yet the corresponding technical standard has lagged years behind the legislation, leaving manufacturers and consumers in limbo while official bodies still advise against storage purchases.¹⁹ Political will outpaced technical standardisation, and the market paid for it in uncertainty.

The opportunity for the UK is to compress Germany's decade into two years, by running the steps in parallel rather than in sequence. Britain has already done the hard part once: the Solar Roadmap commissioned a rapid, focused safety study; the study concluded that plug-in solar on UK ring mains is safe given the right product standards; and the wiring regulations were amended within a year. That is the playbook. The failure would be to stop there, to legalise the panel but not the battery, to amend the regulations but never finish the product standard, and to let a grey-import market define the category before British manufacturers can. That risk is no longer hypothetical: the June 2026 consultation does exactly this, legalising the panel while explicitly excluding the battery.

To unlock the potential of the UK's EnergyTech sector, and smash bills in the short term whilst the Government cracks on with the harder stuff at grid-scale, there are a handful of actions they should expedite in the short term.

It's time to give power to the people, and there is a market ready to deliver.

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<https://www.ess-news.com/2025/06/13/ecoflow-reports-storage-surge-as-germany-reaches-1-million-balcony-power-systems-registered/>

Five Steps to Give Power to the People

Based on what we have heard from the public, lessons from abroad, and what we have heard from Great British EnergyTech entrepreneurs, we propose five concrete steps to equip households with technology to cut bills in the short term.

Step One: Finish the Legalisation of Plug-in Solar, at Pace, With a Deadline.

The wiring regulations changed in April 2026, and in June the Government opened a consultation to amend the Plugs and Sockets Safety Regulations and adopt an interim product specification, the steps that would finally make certified kits legal to sell. This is the right direction, and Startup Coalition will respond in support, but a legal category without certified products, a finished standard, or retail distribution is not a market. The Government should commit now to a hard deadline to finalise the product standard and certification regime, so that kits reach UK shelves this year, while the 0% VAT rate on solar still applies.

Step Two: Legalise Plug-in Batteries and Make Domestic Storage Work.

Storage is the missing half of the household product category, the technology that turns a daytime saving into round-the-clock flexibility, and the part that matters most to the renters and flat-dwellers our polling identifies as the keenest adopters. Two things stand in its way: the product is not yet legal, and even where it is, the rules make its economics marginal. Both need fixing.

First, the Government must legalise the product. The plug-in solar consultation that opened in June is a deliberate half-measure: it covers panels and explicitly excludes batteries. The Government should commission the same kind of rapid, focused safety study it has just used to clear plug-in solar, and simultaneously sponsor the British Standards Institution to develop a dedicated product standard for portable home batteries, drawing on the framework already proven in Germany. Running the study and the standard in parallel, the step Germany fumbled, would give British manufacturers a certified domestic retail channel before grey imports define the category. Concerns about safe design and insurance have been overcome before with gas boilers among others, and can be overcome again.

Second, the Government must stop taxing storage twice. A home battery imports electricity to charge and later discharges it to the same household. Where policy levies and network charges are applied per unit on the way in, treating the battery as final demand, the household pays those costs on energy that is merely being shifted in time, energy whose eventual use would have carried the same charges anyway. The stored unit is charged once to enter the battery and serves a consumption that is charged again, with round-trip losses meaning levies are paid on more power than the home ever uses. This is not hypothetical: Ofgem already recognised the problem for grid-scale storage, exempting licensed storage from final consumption levies on the electricity it stores, but the carve-out stops short of the behind-the-meter batteries this report is about. The system has fixed the double charge for the largest players and left it in place for the household. Extending equivalent treatment to domestic storage, so that charges fall once on net consumption rather than twice, would do more for home-battery economics than any subsidy could.

Legalisation puts the product on the shelf and ending the double charge is what makes it pay. Without both, a plug-in battery is a device the public wants and the rules quietly penalise.

Step Three: Give Households a Price Worth Responding to, and the Data to Respond.

A household can only cut its bill by shifting when it uses power if two things are true at once: the price it faces must actually move with the system, and it must be able to see and act on its own data. These are not two reforms but one mechanism with two halves, and Britain has delivered neither at scale.

The single most popular change our respondents wanted was access to cheaper prices at different times of day, chosen by 21%, yet only 9% are on a time-of-use tariff, despite smart meters now sitting in a majority of homes. Dynamic tariffs already exist, but they remain the preserve of the engaged few. A flat tariff gives a battery, a smart EV charger or a heat pump nothing to optimise against. Making cost-reflective, time-varying pricing the norm rather than a niche product, underpinned by the completion of market-wide half-hourly settlement, which sharpens every supplier's incentive to reward flexibility rather than treat each customer as a flat profile, is the largest market lever for household flex there is. The same logic runs to export: 82% told us they would adopt new technology if they could sell surplus power back to the grid, a mass market waiting on a price worth selling into.

Next, households must be able to access, share, and act on their own energy data in a standardised way. The government should legislate a legal entitlement for any consumer to access their real-time and historical energy data in a standardised, machine-readable format and share it with any third party they choose. Data rights are the infrastructure beneath every downstream product, from smart tariff comparison to automated switching to virtual power plant participation. The model is Open Banking, which a deliberate 2018 regulatory decision turned into a £4bn UK startup sector with over 17m active users.²⁰ Open energy is the same idea, applied to the largest consumer market in the country.

²⁰ <https://startupcoalition.io/news/the-4bn-open-banking-ecosystem/>

Step Four: Make the Zero Rate of VAT on Decarbonisation Technology Permanent, Outcomes-Based, and Dynamic.

The Energy-Saving Materials relief expires on 31 March 2027, creating a demand cliff that already distorts installer pipelines. The Government should remove the sunset clause and make the relief permanent. But it should also fix the deeper flaw: today's relief rewards a static list of named products rather than the outcome we actually want, which is cheaper bills and lower energy use per pound spent.

We recognise the practical reality, HMRC needs a defined list it can administer, and cannot have every buyer self-certifying at the till. The answer is a list governed by outcomes and kept dynamic. The qualifying list should be set by a transparent, outcomes-based test (such as carbon abatement and bill reduction per pound, perhaps through alignment with the parallel work under the Warm Homes Plan to introduce an innovation pathway for novel retrofit technologies). There must also be a fast-track route by which any novel technology, like heat batteries, thermal storage, and successors not yet invented, can apply to be assessed and added on the same evidential basis, and a statutory duty to review and refresh the list on a fixed cadence so it keeps pace with innovation.

A first refresh should bring in EV chargers, energy-efficient windows and doors, mechanical ventilation with heat recovery, thermal storage, heat interface units, and smart energy management systems.

Step Five: Give Households a Genuine Choice of Finance That Removes the Upfront Cost

Upfront cost is the single largest barrier in the dataset, cited by 45% of non-adopters. Removing it is the most consequential lever available to the government, but the lesson of every past scheme is that no single product reaches every household. The right response is therefore not one mandated mechanism but a real choice between two complementary, upfront-cost-free routes.

The first route is a 0% Home Energy Loan, attached to the property rather than the person. The government should go further than the Warm Homes Plan's proposed 'low and no interest' finance partnerships and introduce a standard, government-backed product at a definitive 0% interest, with the repayment term matched to the measures it funds rather than a single fixed term applied across assets of very different lives. Britain has attempted property-linked energy finance once before, and the design must learn from why that attempt failed. The Green Deal, legislated under the Energy Act 2011 and operating from 2013, attached finance to the property and recovered it through a charge on the electricity bill, with the obligation passing to the next occupier.²¹ It collapsed within two and a half years:

²¹ <https://www.legislation.gov.uk/ukpga/2011/EE%80%801/16/contents>

households funded barely 1% of installed measures through Green Deal loans, the National Audit Office found it had not delivered value for money, and its 7-10% interest rate sat several points above ordinary high-street borrowing, leaving many measures unaffordable even on the scheme's own terms.²² The 0% Home Energy Loan resolves this directly. Where the Green Deal asked households to inherit an interest-bearing debt that frequently exceeded the savings it generated, this product guarantees either zero interest or a net saving from day one, the precise trigger our respondents identified.

This also reframes the question of property linkage. The Green Deal showed that linkage is not a purely presentational concern: prospective buyers and tenants reported that an inherited charge could deter them from a property, and our own finding that property linkage polls lowest at 13% reflects the same instinct. But that resistance was inseparable from what was being inherited, an above-market debt of uncertain benefit. A charge that is interest-free and offset by lower bills from the moment of purchase is a materially different proposition, and the policy and communications task is to make that distinction unmistakable at the point of sale and in conveyancing. This requires primary legislation to create a statutory Local Land Charge mechanism, and should be included in the upcoming Energy Independence Bill.

The second route is third party ownership, which turns the same technologies into a service. A provider finances, installs, owns and maintains the solar panels, battery or heat pump, and the household pays only for what it uses or a fixed monthly fee, with no loan and no asset on its own balance sheet. This reaches households the loan cannot. It is the route that works for those for whom taking on debt is unsuitable or unwanted, and for those who would simply rather buy an outcome, a warm home, lower bills, than own and maintain capital equipment. Without it, "choice" is illusory.

Three changes would let this market function. First, parity of support: if the government is to subsidise a 0% loan, it must offer third party ownership a comparable level of support within the Warm Homes Plan. Without parity a subsidised loan will out-compete and extinguish the ownership-free market, the opposite of the choice this step is meant to create, and providers are already withdrawing well-designed lease products because they cannot compete with subsidised debt. Second, the Boiler Upgrade Scheme regulations should be amended so its heat pump grant can be claimed where the equipment is third-party owned, not only by a householder who buys outright. Third, DESNZ should issue a clear directive to the FCA to engage constructively with permissions applications from firms seeking to offer these products; at present the regulator's reluctance lets it throttle new entrants by withholding authorisation, while incumbents who hold the relevant permissions have little appetite to serve the market.

Underpinning all three of these recommendations is a single point of regulatory clarity. DESNZ should stop treating third party ownership, energy-as-a-service and subscription models as separate policy questions. Together these two routes do what no single product can: they remove the upfront cost for the households that want to own their system and for those that never will. The polling shows the demand sits on both sides. The policy task is to fund the choice, not to pick the winner.

²² <https://www.nao.org.uk/reports/green-deal-and-energy-company-obligation/>

Energy is Broken. It's Time to Fix it.

The energy crisis that began in 2021 has hardened into a structural fact of British life, and the politics around it have curdled into a false choice between those who treat decarbonisation as an unaffordable luxury and those who treat any mention of cost as heresy. Our polling shows the public has been ahead of Westminster all along. Britons are not asking to abandon net zero; they are asking to benefit from it, in their bills and in their economy, and soon.

The route through is not the disappearance of the state, but a better-aimed one, and a willingness to stop hoarding decisions at the centre. On the system side, the state must keep doing what only it can: guaranteeing supply, building shared infrastructure, and planning the grid. But a state that plans everything and prices almost nothing ends up paying twice, once to build slowly, and again to manage the consequences of not having built, with curtailment the clearest line item on the nation's bill. The remedy is to build the rails and let the market run: price the surplus, price the connection, price the headroom, and let value flow to where it is highest and back into the system that creates it. On the household side, the technologies that let people generate, store, shift and sell their own energy already exist, are wanted, and are made by a £22bn British sector ready to scale. What stands in the way is not engineering or appetite but a series of unfinished policy choices, each one blocking a product the public has told us it wants to buy.

None of the eight steps in this report requires a heroic new subsidy or a leap of technological faith. Each finishes something already begun, or removes a barrier the state itself erected: a market left unconvened, a connection mispriced, a relief due to expire, a safety review concluded but never built upon. The cost of inaction is more power paid to be thrown away, more capacity handed out below its worth, and more households locked out of savings that are theirs for the taking.

It is time to give power to the people. The market is ready to deliver.



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