Industry in Focus

Hit the control switch: How UK industries are navigating the energy challenge

PwC UK Energy Survey 2024

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Foreword

The next step in the UK's energy transition

The energy price spike in 2022 demonstrated the UK's vulnerability to volatile energy costs. It was no longer possible to ignore the country's dependence on access to a stable, affordable supply of power.

Energy prices have since subsided, although they remain volatile and are still above long-term averages.
But make no mistake: the UK's exposure to energy price volatility is the result of deep-seated vulnerabilities, increasingly exposed by the country's net zero objectives. These vulnerabilities have been brewing for years, and they will remain with us as the country restructures to a low-carbon economy.

Addressing these vulnerabilities requires systemic solutions, but fixing a national energy system is like solving a Rubik's Cube: you cannot do it by looking at just one side. In this case, the UK must address both energy supply and demand.

So far, policy support has mostly focused on the supply side, replacing fossil-fuel-based generation with low-carbon energy and ensuring stable access to liquid natural gas. Looking ahead to deliver on the UK's net zero commitments, ensuring that the country's energy platform is not only low-carbon and sustainable but also secure, resilient and affordable will require transforming demand. This calls for new approaches and a commitment to long-term change from energy users as well as energy suppliers and government.

For businesses and public sector organisations, this means taking control of their energy. Maximising energy efficiency, without endangering productivity, will protect them from fluctuating prices. Taking control of energy and carbon costs will allow them to find practical routes to decarbonisation in a challenging economic environment.

But few UK organisations are in full control, PwC's UK Energy Survey reveals. We can perceive three organisational archetypes, which sit at different stages of a maturity curve: 'reactors', which have adopted mostly short-term, supply-focused measures; 'planners', which have invested in longer-term actions to reduce their exposure to energy price fluctuations; and 'transformers', which are looking end-to-end across their organisations to manage supply and demand, cost and carbon.

More enduring resilience will require long-term investments and operational transformation to solve for both energy and carbon costs: using less, doing so more efficiently and reducing carbon intensity.

Taking control of energy should be an urgent priority. The UK has made world-leading progress on decarbonising its energy supply. Recalibrating how energy is used to ensure a competitive and resilient economy, as well as stable and affordable public services, is an equally important step in the nation's energy transition.

Vicky Parker
Power & Utilities Leader
Partner, PwC United Kingdom

Matt Alabaster,
Energy, Utilities & Resources
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Key findings

In November and December 2023, PwC surveyed 750 executives involved in energy decision-making at UK organisations in 15 sectors across the government and health services, industrial and manufacturing, consumer markets, and technology and telecommunications industries. The survey examined their use of energy and how they manage volatile prices while meeting their decarbonisation commitments.

Our key findings are:

- **The economic impacts of higher energy prices aren't over yet.**

  Energy price volatility has hit UK organisations hard in the past two years. For nearly two-thirds of businesses, it reduced their ability to compete internationally (65%) and at home (64%). It forced 77% to increase their prices, either moderately or significantly, while 67% say it negatively impacted profits or margins.

  And there is more economic hardship to come. Many organisations have been protected from price fluctuations by fixed-term energy tariffs and government support schemes, both of which will eventually expire.

  As a result, 81% of surveyed businesses expect to increase their prices in the next two years, and 72% expect profits to be impacted. This is consistent with the main scenario in PwC's latest economic outlook, in which the UK economy grows by around 0.5% in 2024 in real terms, significantly below its potential.

  Energy prices have been the main trigger of the recent changes in headline inflation, which hit a 41-year high in October 2022. However, energy price volatility, combined with sluggish growth, mean that UK organisations will continue to feel the squeeze for the foreseeable future.

- **UK organisations are at different stages of maturity over the control of their energy supply and demand.**

  To insulate themselves from energy price volatility while delivering on their decarbonisation commitments, UK organisations need a firm grip on energy, and not just at the point of supply.

  Controlling their own demand – by reducing consumption and boosting efficiency – is essential for building resilience to price fluctuations, thereby maintaining competitiveness, as well as a vital next step in the UK's energy transition.

  A separate study that PwC conducted with the World Economic Forum revealed an opportunity to reduce global energy demand by 31%, saving $2tn annually by 2030, without sacrificing productivity. If other countries take better advantage of this demand front, UK businesses will become less competitive in international markets.

  Some UK organisations have taken action to insulate themselves from further price volatility, the survey shows. The most widely adopted measures, such as reviewing energy procurement (fully adopted by 37% of respondents) and renegotiating contracts (31%), are short-term and supply-focused. Longer-term transformational initiatives, such as changing patterns of energy use (25%) and reviewing the mix of products or services (22%) are less widely adopted.

  Whether this is due to the challenging economic environment, or the temporary relief provided by government support, the response from UK organisations to volatile energy prices so far is unlikely to provide long-term resilience.

  However, there are encouraging signs that more organisations are beginning to act. A further 37% are in the process of reviewing their procurement strategies while an additional 37% are in the process of renegotiating their supply contracts.

- **Cost and carbon reduction are two sides of the energy equation.**

  Direct energy costs can no longer be viewed separately from the indirect cost of carbon emissions.

  Almost every organisation we surveyed has some level of decarbonisation commitment. UK organisations face growing requirements to report on their sustainability, and the environmental, social and governance (ESG) reporting standards are complex and evolving quickly. And for those who are subject to the UK Emissions Trading Scheme (ETS), carbon emissions have a financial impact that must be considered in any energy cost saving strategy.

  UK organisations must solve an energy equation that incorporates not only direct energy costs, but also emissions throughout the value chain, including Scopes 1, 2 and 3.

> “We need a multi-dimensional, Rubik's Cube approach to solving the UK's energy system. By taking control of supply and demand, and looking at both direct energy and carbon costs, UK organisations can find tangible ways to decarbonise in a challenging economic climate.”
>
> Vicky Parker,
> Power & Utilities Leader, PwC UK

  Few of them have succeeded, the survey shows, with many seeing cost and carbon as competing objectives. Nearly two-thirds of respondents rank ‘environmental commitments’ among their top five barriers to mitigating energy costs. And over a third (37%) say that high energy costs have delayed their progress on decarbonisation with only 3% saying it had accelerated progress.

  In truth, the two agendas are complementary. Reducing consumption and improving efficiency both insulates organisations from energy price volatility and reduces emissions. But until they achieve full control of their energy platform, they will struggle to make progress on either front.

- **To master the cost and carbon equation, leaders must take a longer-term view.**

  The economic impacts of volatile energy prices have revealed the extent to which organisations depend on a stable and affordable supply. Energy is not just another item on the profit and loss account: it is deeply intertwined with every facet of an organisation’s operations.

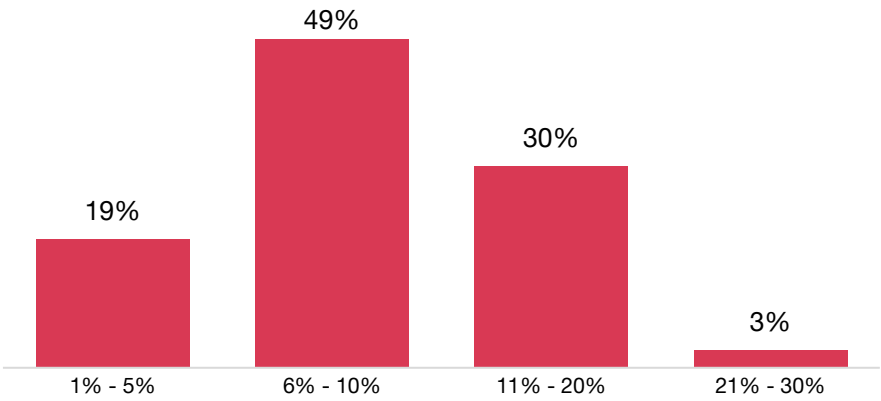
  Essential measures to manage the energy supply can typically be handled by the procurement function, but managing demand through operational transformation requires all parts of the business to work together with ownership from the management team, capital investment, and long-term vision and commitment.

  Energy price volatility is here to stay, and the obligation to decarbonise will only become more urgent. Now is the time to hit the control switch on energy.

1 A new age of volatility

High and volatile energy prices have cost UK organisations dearly, our survey reveals. Despite the insulation provided by fixed-price energy contracts, energy costs have grown by more than 11% in the last two years for a third of respondents.

Figure 1 **Energy cost increases for UK organisations**
By how much have your organisation's energy costs increased over the past two years?
% of respondents



Source: PwC UK Energy Survey

This increase has exposed the economy's vulnerability to energy price fluctuations. Increased energy bills have constrained business' ability to compete both domestically and internationally.

Nearly two-thirds (65%) of respondents from UK businesses told us that high energy costs reduced their ability to compete internationally in the past two years, either 'moderately' (46%) or 'significantly' (18%)[1]. This matches the experience of UK manufacturers: a separate survey, conducted by PwC in partnership with trade body Make UK, found that despite having fallen since 2022, energy prices remain the biggest risk to their growth.

An even higher proportion (77%) say that energy costs have forced them to increase the price of their products and services, adding to upward pressure on UK inflation, which reached a 41-year high in October 2022. And two thirds say that energy costs reduced their profits or margins, limiting their ability to invest in future growth.

The roots of UK energy price volatility

The UK's plan to phase out coal by 2025 and decommission 4.8GW of nuclear capacity by 2028 will lead to a reduction in traditional generating capacity. The introduction of new nuclear plants will provide long-term base load capability, while renewable generation will supply an increasing proportion of our needs. However, replacing existing capacity will take time and there is a disparity between the capacity being built and decommissioned, particularly in the case of base load capacity.

Furthermore, the intermittent nature of renewables means that when the wind doesn't blow and the sun doesn't shine, the UK will become reliant on more thermal power generation and storage to meet short-term demand. This means the country would be more exposed to global commodity markets, leading to volatility in prices during this transitional period.

This became abundantly clear following Russia's invasion of Ukraine. Although only a small proportion of the UK's gas imports came from Russia, the UK was exposed to higher prices as the EU competed for alternative gas supplies and increased gas storage levels ahead of winter in 2022-23. The Government is, however, looking to address challenges around security of supply.

1 Subtotals sum to 65% due to rounding

The new normal

The economic impacts of high and volatile energy costs are far from over. Many businesses buy power on long-term contracts with fixed or semi-fixed prices, so the effects of higher wholesale energy costs take time to filter through.

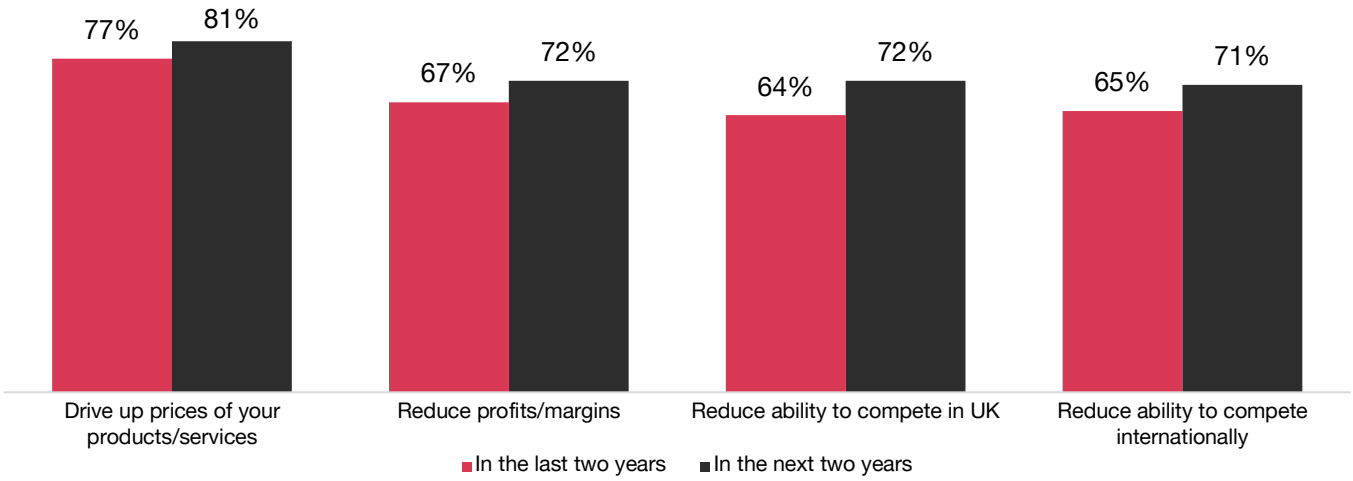
As a result, 81% of respondents expect energy costs to cause them to further increase prices, significantly or moderately, in the next 24 months. Moreover, 72% expect energy costs to negatively impact profits. And 72% believe energy costs will impact their ability to compete in international markets (see figure 2). This is consistent with our view that the UK will continue to face economic headwinds and that GDP growth will remain below 1% in 2024.

Technology and telecommunications businesses expect to be most affected, with 44% expecting energy costs to negatively impact profits, compared with 36% in consumer markets and 26% in industrial manufacturing and automotive.

This may be because demand for energy is rising rapidly in this sector: the market for generative AI, the latest transformational technology paradigm, is rapidly forming. PwC's 27th UK CEO Survey indicates that 42% of CEOs have already adopted GenAI across their company, and 38% have changed their technology strategy to include it. The associated energy requirements are intense: one study estimates that if current trends continue, AI may require more power than many small countries by 2027.

Figure 2 The business impacts of high energy costs

To what extent have high energy costs had the following impacts on your business in the last two years? And do you expect them to have these impacts in the next two years?
% 'significantly' or 'moderately'. Private sector respondents only.



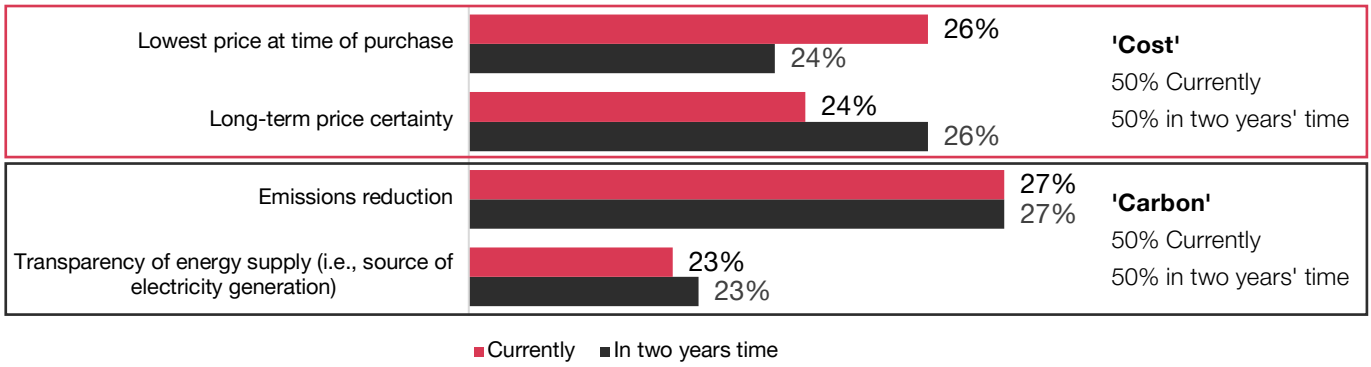
Source: PwC UK Energy Survey

2 An opportunity to gain control

Far from being a forgotten line on the profit and loss account, recent events highlight how energy underpins all business activity, and its availability and cost have a material impact on organisational performance.

Our survey shows that UK organisations are balancing the need for emissions reduction alongside price certainty in their energy costs. Exactly half of respondents say their number one criterion when purchasing energy is cost-related: either the lowest price at the time of purchase (26%) or longer-term price certainty (24%).

Figure 3 **Balancing cost and emissions reduction**
What are currently your most important criteria when purchasing energy? And what do you expect to be the most important criteria in two years' time?
% rank 1

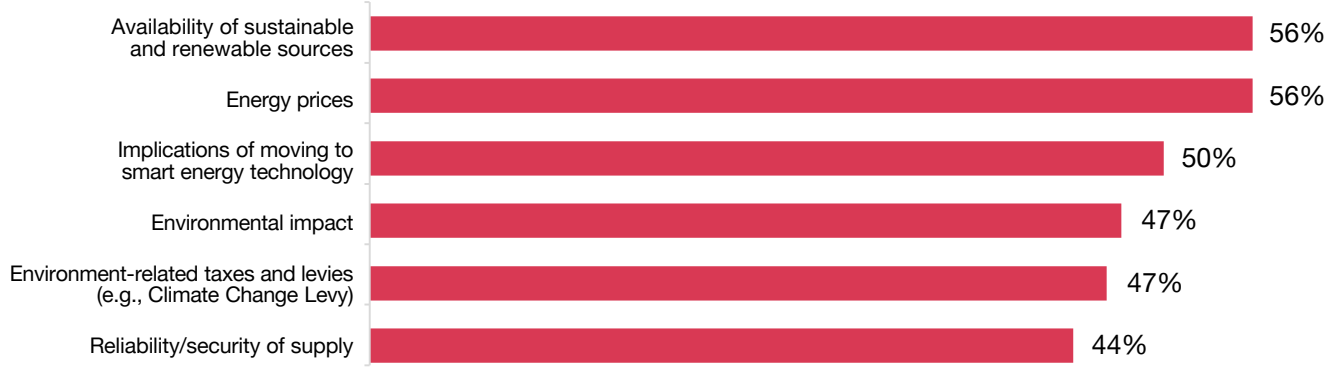


Source: PwC UK Energy Survey

The other half of the sample is focused on decarbonisation when buying energy, prioritising either emissions reduction (27%) or transparency of energy supply (23%).

This duality is also reflected in respondents' energy strategy concerns for the next two years: the most common worries are energy prices and the availability of sustainable and renewable sources, both of which rank in the top three concerns for 56% of respondents (see figure 4). Cost and carbon, this shows, hold equal prominence on the energy agenda for UK organisations.

Figure 4 **Energy strategy concerns**
What are your organisation's biggest concerns relating to its energy strategy in the next two years?
% rank 1/2/3



Source: PwC UK Energy Survey

Moving forward, but slowly

Despite the business impact of high energy costs, few respondent organisations have implemented substantive measures to mitigate them. While the data shows that many businesses are considering a range of options, just over a third say they have 'fully adopted' any of the cost mitigation actions offered in the survey, which include measures to address both supply and demand.

The most widely adopted measures are typically short term in their scope, limited in their complexity, and primarily focused on energy supply. For example, 37% have reviewed their energy procurement strategy, while 31% have renegotiated their supply contracts. These will soon be implemented by many more UK organisations, the survey shows: 37% of respondents are the process of reviewing their energy procurement, and the same proportion are renegotiating contracts.

These are essential measures that every organisation must get right, but they are not sufficient to provide enduring stability. Longer-term initiatives have been implemented less widely. Changing patterns of energy use and installing onsite generation have each been fully adopted by only 25% of organisations. More far-reaching strategies record even less uptake: only 19% have fully adopted or accelerated automation, and the same proportion have reviewed the geographic spread of their operations, by, for example, relocating energy-intensive operations to places with access to low-cost power.

This slow response may explain why less than a fifth of respondents (19%) believe they have had 'significant' success in minimising energy costs.

A problem delayed

What explains this low uptake? There are many factors at play. One is multi-year energy contracts that organisations typically sign: 61% of respondents cite 'being locked into long-term energy contracts' as a barrier to cost mitigation. Those organisations that were able to renegotiate their contracts in the past two years had limited options, given high wholesale energy prices and pressure on suppliers' margins.

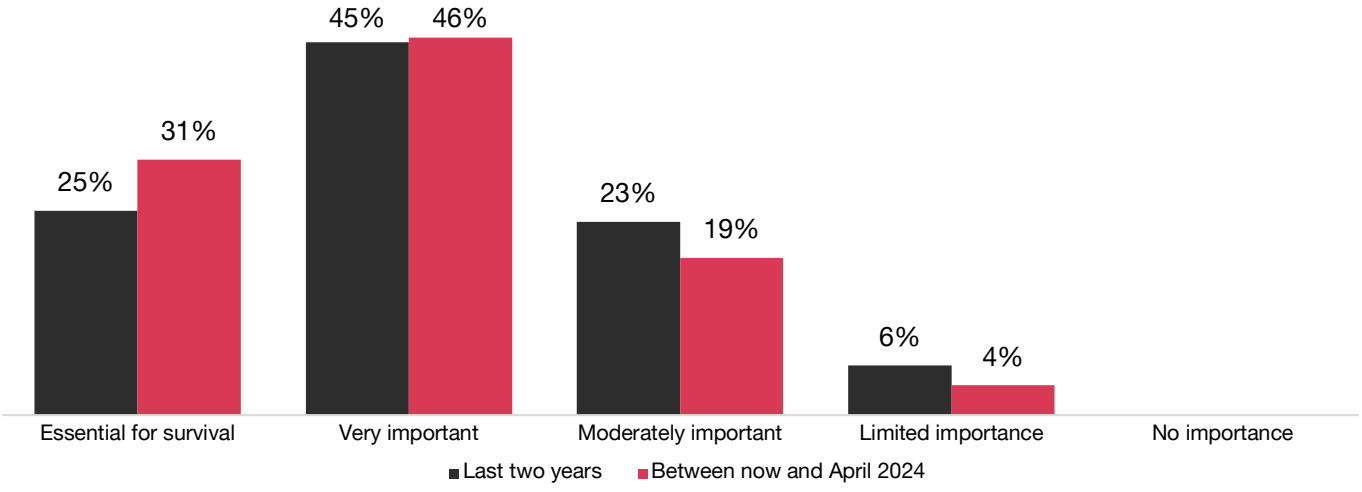
Another contributing factor may be the support offered by the Government to help organisations with their energy bills, the survey suggests. This includes the Energy Bill Relief Scheme, which ran from October 2022 until March 2023, and its successor, the Energy Bills Discount Scheme (EBDS), both of which relieved eligible organisations of a portion of their energy costs.

These schemes were widely used. In fact, every respondent says their organisation received support for their energy costs through at least one scheme in the past two years, with the majority (59%) having benefited from the EBDS.

The sudden energy price spike in 2022 left organisations with little time to adjust or respond, and the Government's support for energy costs has proved vital. A quarter of respondents say it has been 'essential' for their organisation's survival in the past two years, and a further 45% describe it as 'very important' (see figure 5). Government support has been most important for consumer markets businesses – 84% of which say it has been at least 'very important'– and for smaller organisations (81%).

Figure 5 The importance of government support for energy bills

How important was Government support for energy costs to your organisation in last two years? And how important will it be between now and April 2024?
% of respondents



Source: PwC UK Energy Survey

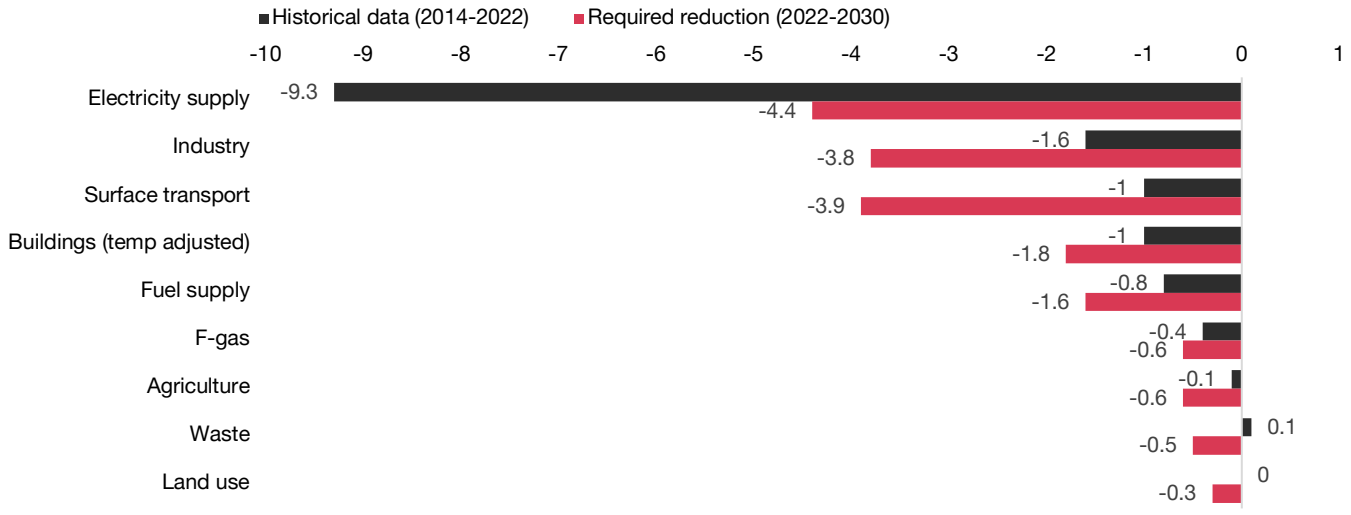
This support is time-limited – the primary support mechanism, the EBDS, comes to an end on 31 March 2024 – and was "intended as a bridge to allow businesses to adapt", the Government has said. Although it is unclear what future measures it may introduce, no further support is expected at this time.

Building resilience

The focus of recent UK energy policy has been directed towards creating a resilient energy system that replaces fossil-fuel generation with affordable, low-carbon energy sources and transitional fuels and increased storage. On the supply side of the equation, there has been significant progress: electricity supply emissions have dropped by 9 MtCO2e, delivering a 61% reduction in total emissions compared with 2014 levels (see figure 6).

Figure 6 The UK's uneven progress on decarbonisation

Average year-on-year change in emissions by sector (MtCO2e)



Source: Climate Change Committee 2023 Progress Report to Parliament

But the UK's energy ambitions also require transforming demand as well as the energy consumed directly by UK organisations. Here, the country has made less progress: between 2014 and 2022, emissions from industry reduced by only 17% and buildings by just 6.5%. And the current pace of year-on-year emissions reduction for industry and buildings falls short of what is needed to deliver the UK's 2030 target[2].

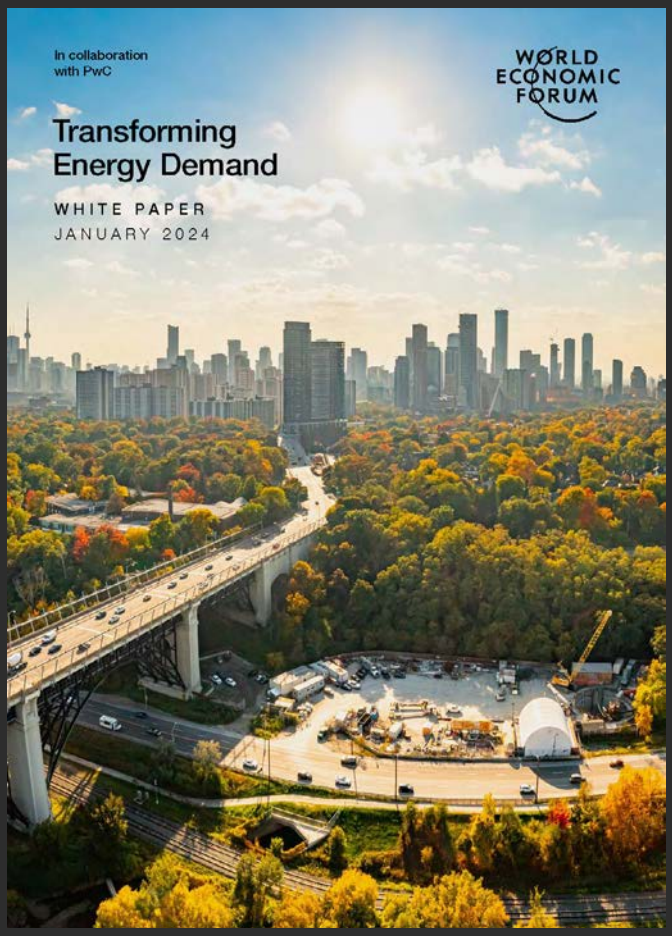
2 The '2030 target' is the Nationally Determined Contribution (NDC) which is to reduce emissions by 68% by 2030 relative to 1990 levels.

Transforming energy demand

Since March 2023, PwC has been working with the World Economic Forum's International Business Council, a group of more than 120 global CEOs, on the 'Transforming Energy Demand' initiative. This aims to identify how action on energy demand can be used to accelerate the global energy transition.

Together, we have identified the potential for a 31% reduction in global energy usage with no loss of output, translating to a $2tn annual saving in energy bills if it were to occur by 2030.

Click to view report



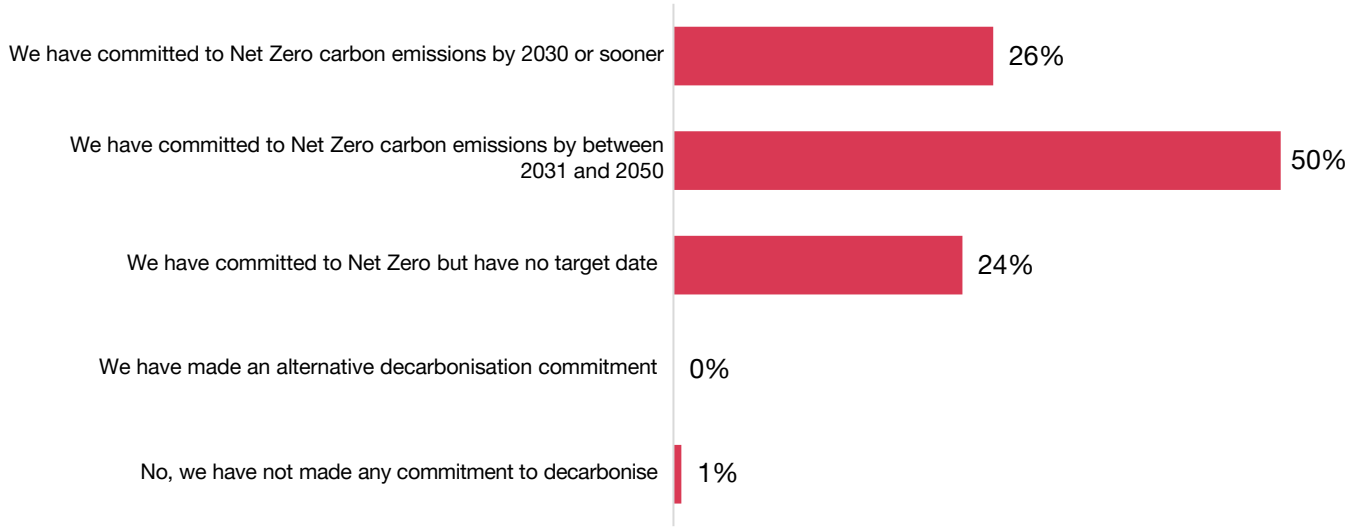
> The availability and cost of energy has a substantial impact on organisational performance and competitiveness. Businesses that take action to maximise energy efficiency will be far less exposed to price spikes and market volatility."

Matt Alabaster
Energy, Utilities & Resources Deals Leader, PwC UK

3 Cost and carbon – balancing priorities

Alongside energy price volatility, decarbonisation remains an important commitment for UK organisations. The good news is that almost every organisation we surveyed has committed to reducing their carbon emissions to net zero. Just over a quarter (26%) have pledged to reach net zero by 2030 or sooner; 50% have a target between 2031 and 2050; and another 24% have a commitment with no target date (see figure 7). In addition, reducing carbon emissions is the top-ranked energy strategy objective for 26% of respondents.

Figure 7 Net zero commitments
Has your organisation made a decarbonisation commitment?
% of respondents



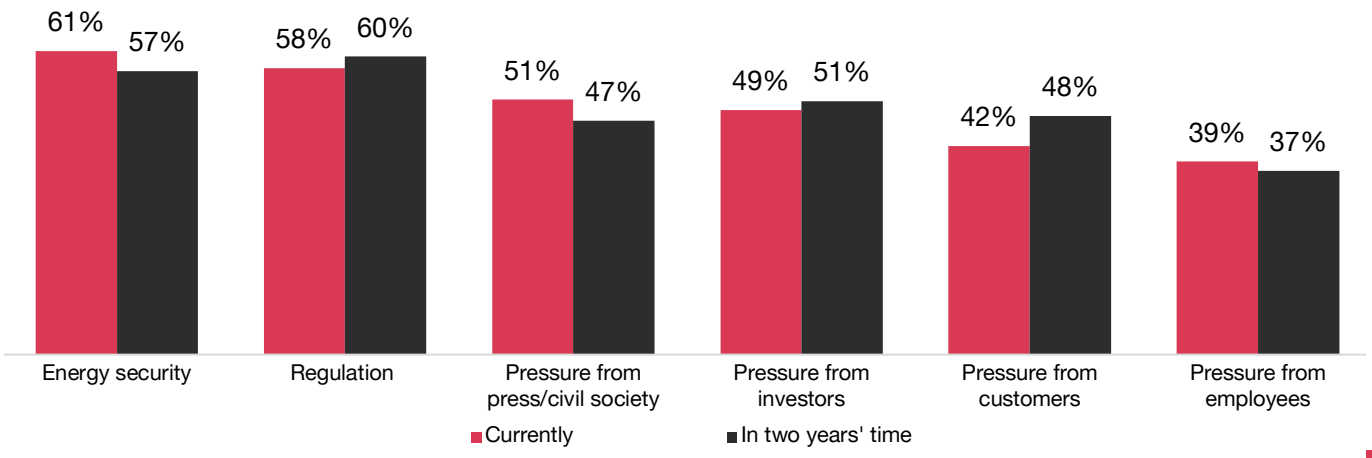
PwC UK Energy Survey. Responses do not total 100% due to rounding

Energy security has been a key driver of energy decarbonisation for many respondents: 61% of respondents rank it among their top three (see figure 8).

The second most common driver is regulation, selected by 58% of respondents: for example, Corporate Sustainability Reporting Disclosures (CSRD) and the requirements now placed by the Sustainability Accounting Standards Board. Last year, the Government also announced reforms to its Emissions Trading Scheme (ETS), accelerating the pace at which carbon-intensive industries will need to reduce their emissions.

Figure 8 Drivers of decarbonisation

What are currently the most important drivers of your organisation's efforts to reduce the carbon emissions from its energy usage? And what do you expect these to be in the next two years?
% rank 1/2/3



Source: PwC UK Energy Survey

Sustainability reporting

UK organisations face growing requirements to report on their sustainability and the environmental, social and governance (ESG) landscape is complex and evolving quickly.

The Corporate Sustainability Reporting Directive (CSRD) is a new EU directive that will take effect for large and listed companies, obliging them to share information on how they monitor a wide range of ESG issues. The CSRD replaces and expands on the Non-Financial Reporting Directive and will require participating organisations to report on this year's performance in 2025.

In August 2023, the Financial Conduct Authority (FCA) announced that listed companies would be required to make sustainability disclosures in line with the UK-endorsed International Sustainability Standards Board in the future.

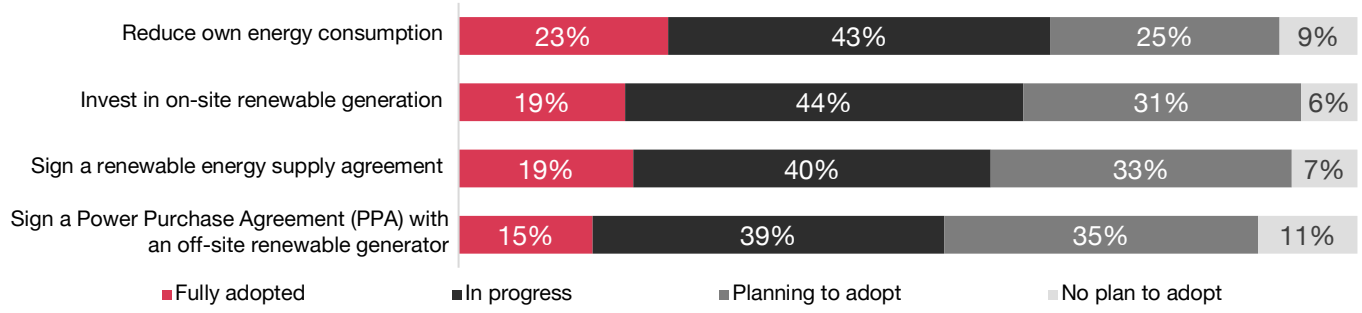
While the standards are still subject to consultation, they are expected to come into effect from January 2025. From then, listed companies will need to consider the Sustainability Accounting Standards Board industry standards when identifying relevant sustainability risks, opportunities and metrics to disclose.

In October 2023, the FCA also welcomed the publication of the Transition Plan Taskforce Disclosure Framework, which provides guidance on how companies can make "high quality, consistent and comparable" disclosures about their decarbonisation plans.

While many companies are considering a range of options to reduce energy-related emissions, just 23% have 'fully adopted' reducing their energy consumption; 19% have signed a renewable energy supply agreement; 19% have invested in onsite renewable generation; and 15% have signed a power purchase agreement (PPA) with an off-site renewable generator (see figure 9).

Figure 9 Progress on energy decarbonisation

To what extent has your organisation adopted the following, specifically to reduce the carbon emissions from its energy usage?
% of respondents



Source: PwC UK Energy Survey

PPAs explained

A power purchase agreement (PPA) is a long-term contract between an electricity generator and a business customer, in which the parties agree to a fixed price for a set term, typically between five and 20 years.

PPAs provide businesses with an opportunity to source a renewable supply, which can support their decarbonisation targets. And they offer renewable energy developers the revenue certainty they need to invest in new capacity.

With the recent high inflationary environment, increasing cost of debt, and volatility in electricity markets, PPA prices have increased for both wind and solar assets.

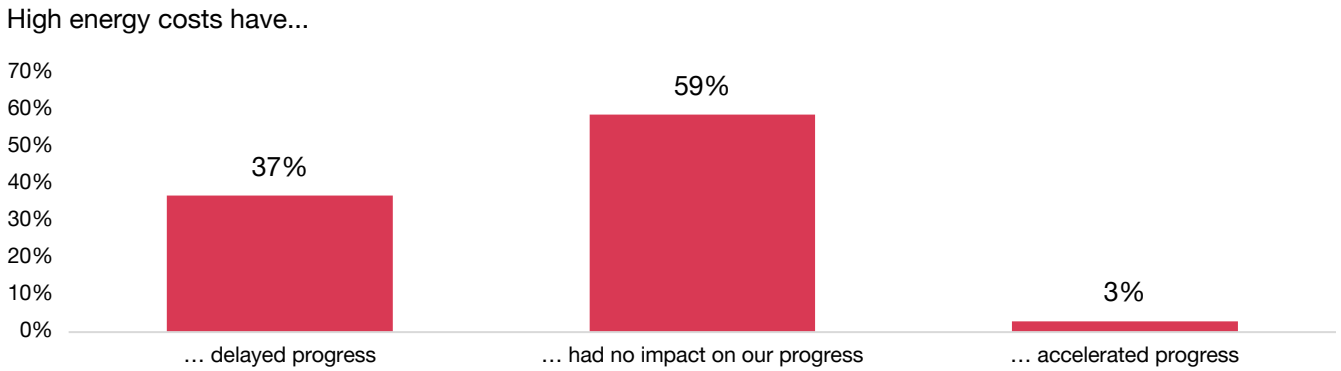
Similarly, only a minority of organisations include an emission reduction target in their current energy strategy. Fewer than half (43%) say their strategy includes a Scope 1 and 2 emissions reduction target and just 19% include one for Scope 3. Interestingly, respondents from the government and health industries, which include mostly public sector organisations, are more likely to have Scope 1, 2 and 3 commitments in place.

Cost vs carbon

It may be no coincidence that respondents have failed to make progress with both cost mitigation and decarbonisation: there are signs that many organisations are struggling to tackle both agendas at once.

It is sometimes argued that high energy costs have accelerated organisations' efforts to decarbonise. Our survey suggests that the opposite is true: high energy costs have, on balance, hindered the UK's progress towards net zero carbon emissions. More than a third of businesses (37%) say increased energy costs have delayed progress towards their own net zero goals, while only 3% say that it has accelerated progress (see figure 10).

Figure 10 Progress on energy decarbonisation
To what extent has progress towards your decarbonisation commitment been impacted by high energy costs?
% of respondents



Source: PwC UK Energy Survey. Responses do not total 100% due to rounding

Many respondents also feel that their net zero commitments tie their hands on addressing energy costs: 63% rank 'environmental commitments limiting our options' in their top five barriers to mitigating energy costs.

This attitude is most common among technology and telecommunications industry respondents, 73% of whom cite this as a top barrier, even though they are also the most likely to prioritise emissions reduction when purchasing energy (34% vs 27% average across sectors) and the most likely to have set a target date for their net zero commitments.

In fact, reducing carbon emissions and energy cost mitigation can be mutually beneficial in many ways. Improving energy efficiency can bring down both costs and emissions, for example. But aligning energy cost mitigation with decarbonisation requires a longer-term, cross-business perspective. It requires commitment from leadership at all levels, transparency of the cost of energy and carbon throughout the organisation, and, in many cases, capital investment to support change.

UK Emissions Trading Scheme

The UK Emissions Trading Scheme (ETS) is a government mechanism to incentivise emissions reduction across generation, energy intensive industries and aviation. It was introduced in 2021 following Brexit and the end of the UK's participation in the EU ETS.

The scheme follows a 'cap and trade' approach: each sector has an emissions cap, limiting the total amount of carbon it can emit, which decreases over time to encourage progress.

Participants receive free allowances and can buy and sell their allowances at auctions or the secondary market. When an organisation is unable to keep its emissions within the cap, it must purchase additional allowances.

Subject to further consultation, the ETS will be expanded to cover the domestic maritime transport sector from 2026, as well as the waste incineration and waste from energy sectors from 2028.

4 Taking the long view

Looking at both the supply and demand of energy, and considering cost and carbon together, is a complex undertaking and requires a long-term view. Organisations need to develop an approach that is based on analysis of the full 'cost and carbon' equation.

The challenge of developing an energy and emissions strategy amid volatile markets requires organisations to manage energy as a dimension of productivity: an input whose costs and constraints shape how the organisation operates.

This mindset requires leaders to look beyond energy-specific functions and consider how the design of their operations, systems, processes, and even products and services and staff contribute to energy cost and carbon emissions.

Interventions such as these require a greater degree of cross-business collaboration and leadership. They also require an organisational commitment to long-term change: 63% of respondents cite a 'lack of solutions with immediate impact' among their five greatest barriers to mitigating energy cost.

Transformational change also requires capital investment. The 'high capital cost of solutions' is the third-highest barrier to energy cost mitigation, with 61% of respondents ranking it in their top five.

External finance may be available for certain measures, such as building on-site renewable generation capacity. But for most organisations, reshaping operations in order to control cost and carbon will need to be financed internally and will therefore require a compelling business case. Evaluating the long-term costs and benefits of energy strategies, including the cost of carbon, is therefore an essential capability.

Moving up the maturity curve

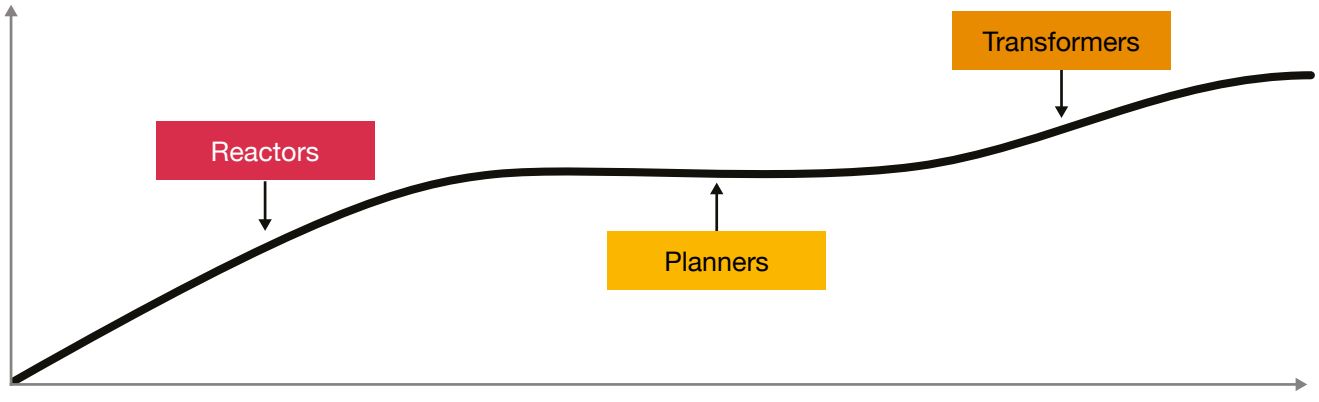
Clearly, not every organisation is yet ready to transform its operations. In our survey, we can perceive three company archetypes, which sit at different stages of a maturity curve.

In the starting position, 'reactors' have adopted mostly short-term, supply-focused measures to counterbalance the shock of recent energy price spikes. These short-term measures can only provide temporary respite, however, and energy price volatility is likely to be a permanent feature of the UK energy system for the foreseeable future. These organisations are also especially reliant on government support – and potentially face a hard landing when it expires soon.

Moving up the maturity curve, 'planners' have invested in longer-term measures to reduce their exposure to energy price fluctuations. This includes signing long-term agreements, such as PPAs, to lock in affordable energy prices, and managing demand through energy efficiency schemes and reducing overall consumption.

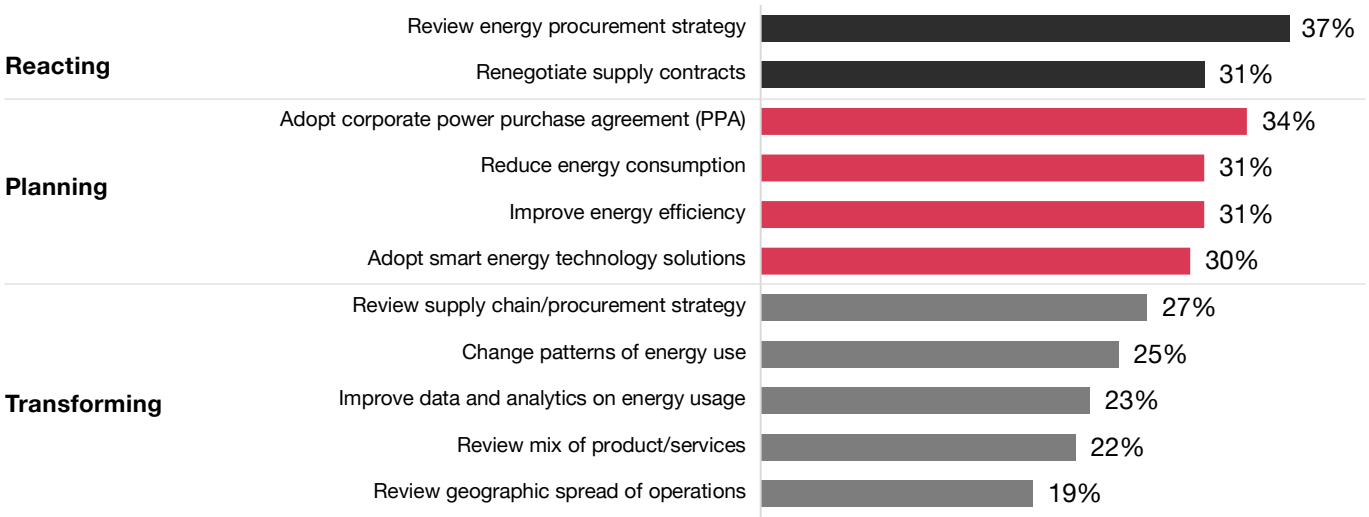
Most mature are the 'transformers'. These organisations have a handle on supply and demand, cost and carbon, and can transform their operations to balance cost control and emissions. They can exert the greatest degree of control over their energy platform.

Figure 11 Maturity journey



> Businesses need to develop energy strategies based on the full ‘cost and carbon’ equation, which is a complex exercise that requires a long-term perspective.”
>
> Chris James,
> Director, Power & Utilities, PwC UK Strategy&

Figure 12 From reacting to transforming
To what extent has your organisation adopted the following actions, specifically to minimise energy costs/ counter the business impact of high energy costs?
% ‘fully adopted’



Source: PwC UK Energy Survey

Achieving predictable and controlled energy costs while eliminating carbon emissions is a multi-year transformation and will require long-term vision and leadership. But until UK organisations think in the long term, they will continue to suffer the effects of high and turbulent energy prices and risk enduring damage to their competitiveness.

Recommendations

1. Plan for the future and take the long-term view

Energy price volatility is arguably more damaging than high absolute costs, as it can undermine forward planning and make business cases too uncertain. Organisations should aim to protect themselves from this volatility by taking actions that provide them with greater control over their energy usage and greater energy price certainty to mitigate exposure to energy system vulnerabilities.

2. Address both supply and demand

Taking greater control of their energy will require organisations to consider both supply and demand levers across functions, requiring ownership from the board and the management team. This also requires a strong understanding of current energy usage, and when, where and how this could change. By building this knowledge baseline, organisations can identify the appropriate actions to take depending on their maturity and ability to invest.

3. Tackle cost and carbon together

Organisations need to consider the full 'cost-carbon' equation. Reducing carbon emissions and energy cost mitigation can be mutually beneficial in many ways. Organisations should explore actions that reduce both energy usage and direct energy costs as well as carbon emissions and the associated indirect costs, such as optimising machinery and processes and reducing idle time.

Building the baseline: What do organisations need to know?

Figure 4 All organisations need to baseline their starting position to map a way forward that is right for them

	Cost	Carbon
Supply	• Supplier contract terms (fix vs. variable, length of contract) • Annual energy costs • Materiality of energy costs to operating costs	• Fuel source and whether 100% renewable • How fuel supply supports carbon reporting requirements • Other carbon emissions incentives, e.g. carbon offsets/carbon credits
Demand	• Existing and future (2-5yrs) energy usage • Energy monitoring and tracking of usage • Energy usage profile – when and where (e.g. buildings, processes, transport etc.) • Ability to flex usage • Energy efficiency plans • On-site generation (e.g. solar PV)	• Source and level of emissions • Scope 1-3 emission reduction targets • Check compliance and reporting against accounting standards • Future energy emissions • Impact of UK ETS • Impact of international regulations

4. Aim for energy mastery

Managing supply and demand may be the most immediate lever for controlling energy costs, but long-term transformation – and decarbonisation – will require organisations to understand their entire operations through an energy and carbon lens.

The extent to which organisations can do this will depend on their organisational sophistication, the data available for making informed decisions, the availability of capital, and their expected returns on investment. But all organisations can advance on the maturity curve from short-term, supply-focused interventions, through demand management, to broader operational transformation.

Organisations should not be afraid of a disaggregated response. While a large number of small initiatives can be complex to manage, democratising the challenge across the organisation could be a good place to start. This aligns with PwC's recommendations from the 27th Annual UK CEO Survey, which emphasise reinvention to drive growth and competitiveness.

There is no magic fix and no one-size-fits-all approach; UK organisations need to adopt a pathway that is right for them, noting that it will likely evolve as technology advances and markets change. But the prize is significant: greater competitiveness, greater resilience and greater control in a global economy where energy efficiency and carbon emissions become ever more important as an axis of competition.

Our position on climate

Tackling the climate and nature crisis is core to our purpose of building trust in society and solving important problems. We've been delivering on our own sustainability efforts for over a decade, with a focus on reducing the environmental impact of our business and working with our clients to help them turn their climate ambitions into action.

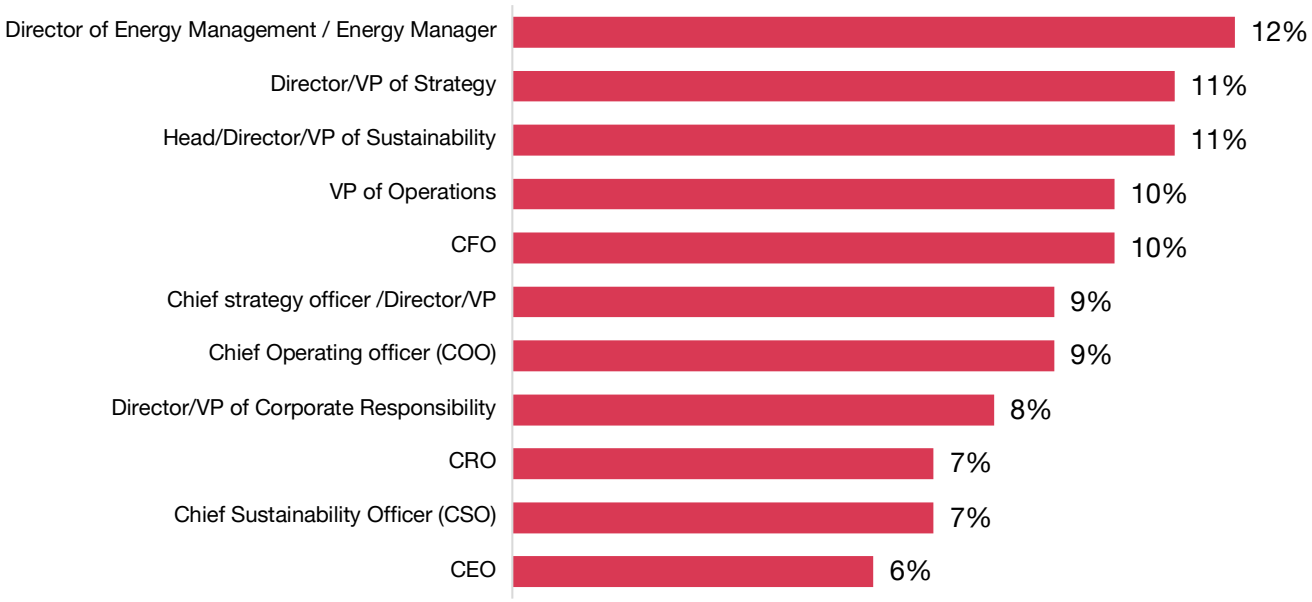
In 2020, we made a worldwide commitment to achieve net zero greenhouse gas emissions by 2030, with our near-term goals validated by the Science Based Target initiative. In the UK, we have transitioned to 100% renewable electricity and reduced our carbon emissions from scope 1 and 2 by 87% since FY19. Our full progress to date can be viewed on our integrated reporting hub.

Methodology

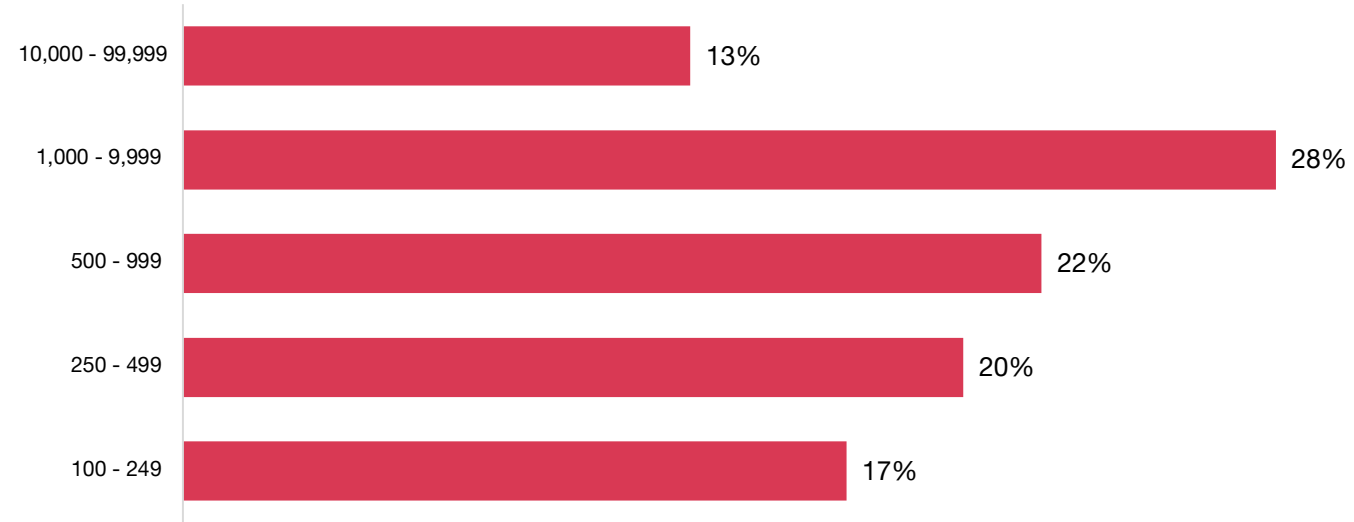
In November and December 2023, PwC surveyed 750 senior UK executives that make or influence strategic decisions related to energy.

The survey demographics are as follows:

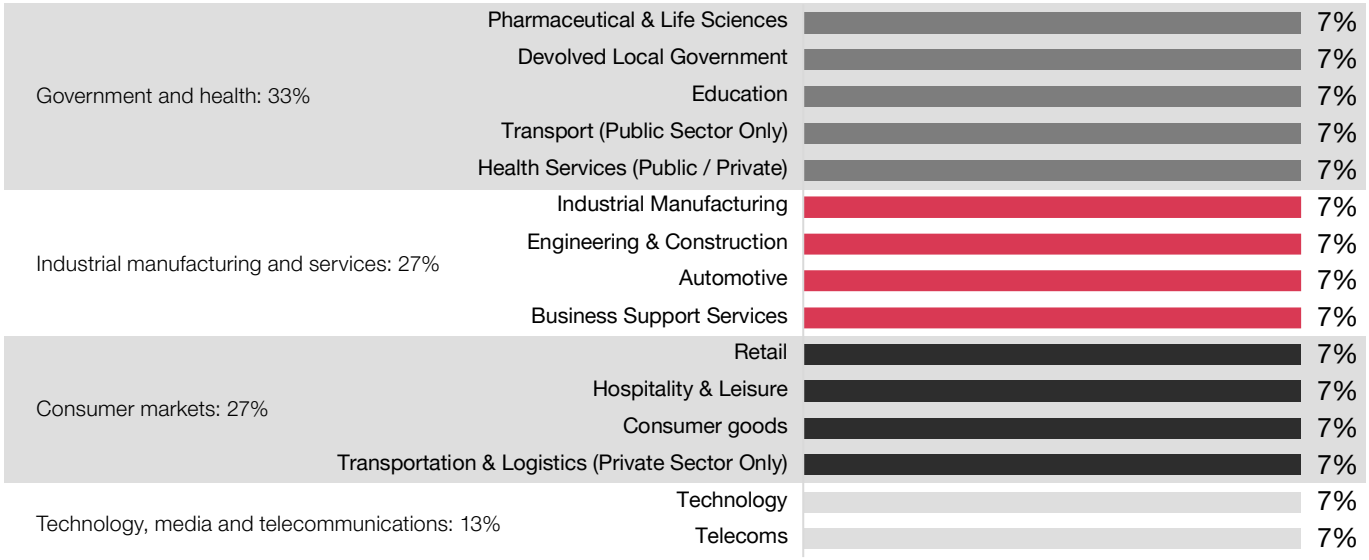
Job title



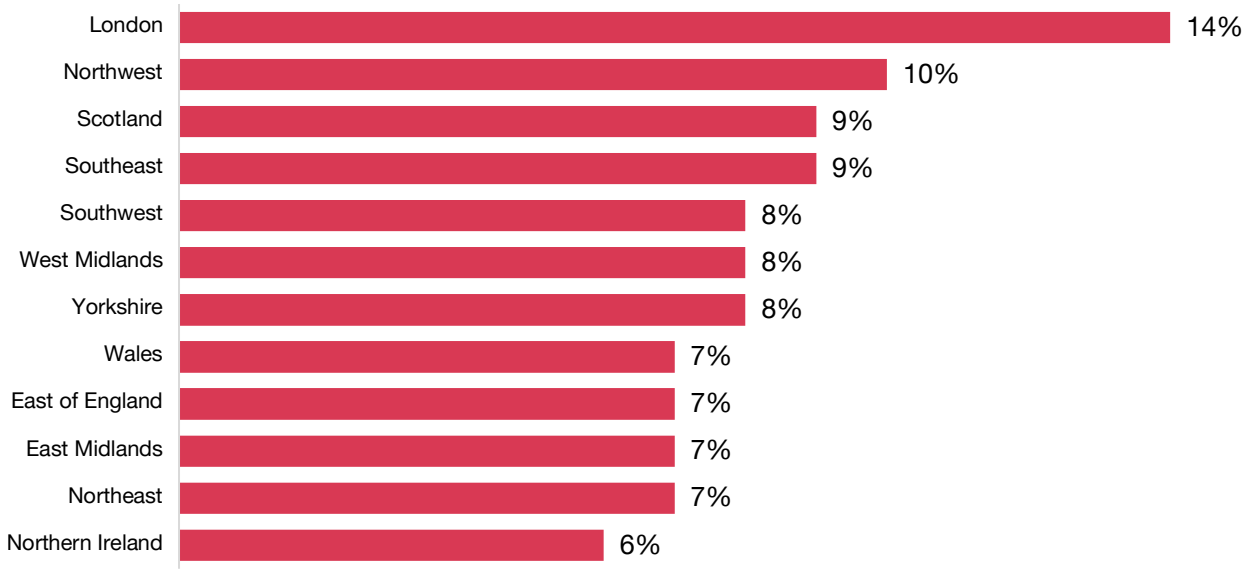
Organisation size (number of employees) in the UK



Industry and sector



UK region



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