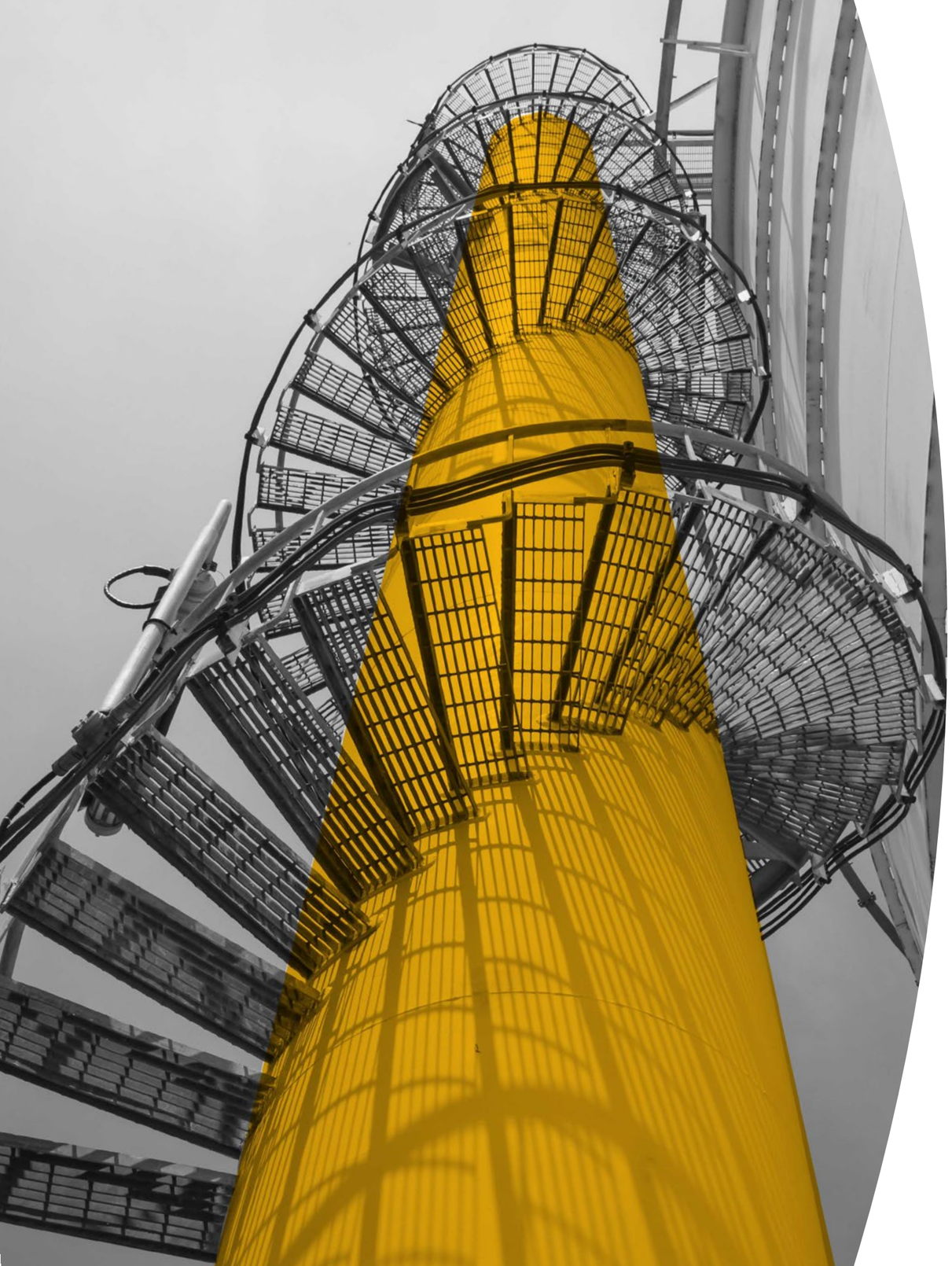
ENERGY OUTLOOK 2026

RESILIENCE, RISK, AND THE ROAD AHEAD

UK EDITION

WOMBLE BOND DICKINSON

A POINT OF VIEW LIKE NO OTHER



WELCOME NOTE

We are pleased to share the fifth edition of our global energy sector research – Energy Outlook 2026 – which sheds light on the challenges and opportunities facing a sector undergoing rapid change.

Drawing on insights from more than 650 senior leaders developing energy projects across major global regions – including energy companies, investors, service providers, and energy-intensive consumers – the report reveals mounting pressures to meet energy demand as government policies shift and AI-driven demand surges.

We hope this report provides clarity and actionable insight into the forces reshaping the global energy landscape. From policy shifts and technology breakthroughs to supply chain pressures and rising demand, these dynamics affect every participant in the energy ecosystem, whether you develop projects, invest in infrastructure, or rely on energy to power your business. Our goal is to help you anticipate challenges, identify opportunities, and make informed decisions in a market where speed, resilience, and strategic foresight matter more than ever. Please do not hesitate to get in touch if there is anything you would like to discuss in more detail.

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KEY FINDINGS

1. Grid connection and capacity issues, and shifting policy, are delaying new energy production

While global energy demand is accelerating – driven by electrification, AI, data centres, manufacturing growth, and extreme weather – the real challenge lies in delivering energy where and when it is needed. Systemic grid constraints, compounded by permitting delays and regulatory uncertainty, are holding back nearly a quarter of new capacity worldwide.

2. Project cost escalation and delays are reshaping the economics of energy development

Project costs have jumped between 20% and 23% from quotation to construction, depending on the energy subsector, forcing more than half of all firms to renegotiate contracts. Naturally this is a challenge for the largest or most capital-intensive projects. Nuclear and hydrogen projects face the steepest cost inflation and highest missed revenue (more than US$600m and US$429m per company annually, respectively). But the financial impact of delays is felt across all regions and business types, with an average loss of US$325m per company each year.

3. Self-generation is emerging as a solution to long-term supply issues

Large energy users (data centres and industrial manufacturers) expect to self-generate ~23% of their power within one to three years. In the US, more entities are relocating operations to regions with more stable supply (~39% vs ~31% global), underscoring that location has now become a reliability strategy.

4. Technology is becoming vital for demand management

When physical projects stall, companies pivot to extracting more output from existing assets: tech budgets for energy-supply optimisation are expected to rise ~15.6% in 2026, with ~75% prioritising AI/ML and ~58% citing use of digital twins/predictive maintenance.

5. Early regulatory and community engagement is key

While most organisations recognise the value of engaging regulators early and are putting this into practice, community engagement lags. This gap suggests a missed opportunity, as a result projects that proactively involve communities from the outset are more likely to avoid opposition, reduce disputes, and accelerate approvals. Firms that move beyond partial adoption and embed early, two-way engagement with all stakeholders will be better positioned to deliver projects on time and with greater investor confidence.

UK in focus

1. Low growth and high project abandonment make for a challenging market

The UK faces some of the toughest conditions for expanding energy production[1]. Despite rising demand, firms expect 16% capacity growth over the next 12–24 months, slightly below the 17% global average.

2. The main obstacle to new capacity is clear: grid connection delays

Despite planned reforms, a significant proportion of UK firms cite grid-connection delays as their biggest barrier. Faced with these constraints, companies are shifting from a focus on greenfield projects to more diverse strategies, including balancing upgrades, mergers and acquisitions, partnerships, and retrofits.

3. UK companies face more community opposition than other regions

42% of UK firms report their energy infrastructure projects being delayed due to community opposition, significantly more than the 32% global average, prompting them to develop new strategies and benefit schemes to ensure local communities also profit from new projects.

[1] House of Commons Library (14 Jan 2026): clean sources = 63.7% of UK generation; 2030 target = 95% of generation and well below 50 gCO_2/kWh carbon intensity.

INTRODUCTION

In 2024, global energy demand grew by 2.2%, faster than the average rate over the previous decade[2]. The Energy Outlook 2026 report finds that, despite expansion ambitions, energy companies and consumers are struggling to keep pace with demand, dealing with obstacles including grid delays, regulatory uncertainty, and soaring costs.

These obstacles are challenging energy projects, causing companies to lose US$325m annually, on average, across all regions and sub-sectors, according to our research.

The race to deploy new energy capacity while keeping up with changing regulations is reshaping the energy sector. Companies are shifting their focus from 'energy transition' to 'energy additionality', blending renewable production projects with traditional fuel sources (oil, gas, and nuclear), relocating production, and investing in self-generation and technology.

The real test lies in how rapidly companies can adapt to the shifting energy paradigm to sustain value while driving future growth. Many accelerate investment in scalable sectors – like solar – and embrace technologies such as AI to cut costs and boost efficiency, extracting greater value from existing resources.

UK in focus

In January 2026, the UK's share of fossil-fuel-generated electricity rose for the first time in four years, due to declining nuclear output and increased reliance on gas, an early indicator that the 2030 clean grid target could be at risk[3]. The biggest barrier to bringing on new capacity currently is the UK's strained infrastructure and grid-connection system, companies face waits of up to 15 years as the queue has grown tenfold in five years.[4]

In 2025, the UK created a Clean Power 2030 Action Plan[5], which pledged US$40bn annually over six years to expand clean power, accelerate grid connections, and speed up planning. However, challenges to a faster growth of capacity remain.

NESO's fast-track grid-connection reforms—shifting from "first-come, first-served" to "first-ready, first-needed"—are intended to prioritise viable projects and deliver the first operational connections from 2026, though near-term capacity constraints will still be felt.[6]

UK firms not only report one of the weakest production growth outlooks globally, but also one of the highest project-abandonment rates. Firms here lose US$291m a year on average from delays, more than in the US or Europe.

In addition to grid connections being stuck in a slow, tangled process, where there is capacity, it is often in the wrong place. It means that more investment is needed in storage and optimisation. "We're sitting on untapped efficiency," says Chris Towner, Energy & Natural Resources UK Sector Leader at Womble Bond Dickinson. "Better use of our current infrastructure and data, powered by AI, and driven by the energy consumer, could transform how we balance the grid and find new capacity."

[2] Global Energy Review 2025", International Energy Agency, March 24th, 2025
[3] UK power turned dirtier in 2025, Bloomberg, January 6, 2026
[4] Clean energy projects prioritised for grid connections", UK Department for Energy Security and Net Zero, Ofgem, National Energy System Operator and The Rt Hon Ed Miliband MP, Press Release, 15 April 2025
[5] Clean Power 2030 Action Plan: A new era of clean electricity", UK Department of Energy Security and Net Zero, 5 April 2025
[6] Connections Reform – Phase 3: Detailed design framework changes, NESO, 2026

INSIGHT 1

PRODUCTION GROWTH MEETS BOTTLENECKS

Electrification, AI, data centres, and climate control all accelerate global energy demand growth. Infrastructure and grid constraints, red tape, and regulatory uncertainty hold nearly a quarter of new energy capacity back.

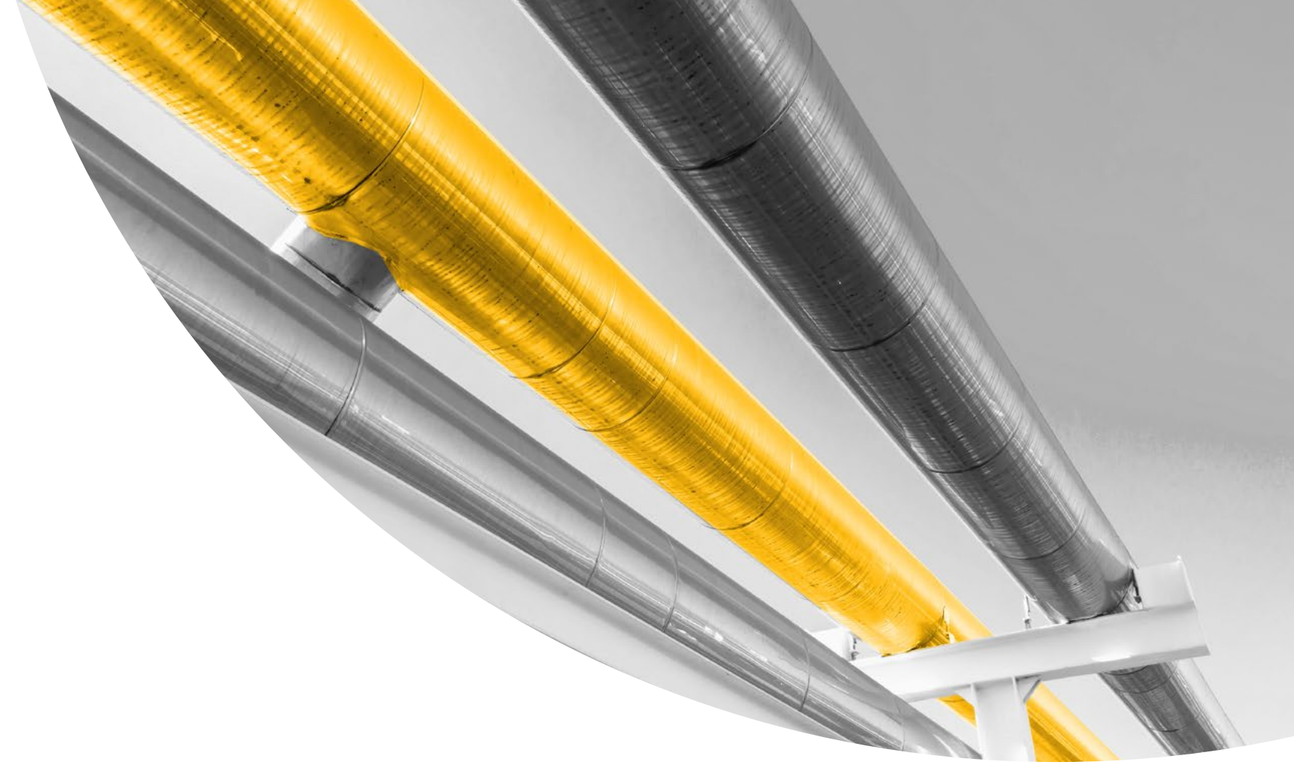
Energy companies and consumers from energy-intensive industries are eager to expand production as energy demand accelerates. Demand growth is being driven by economic growth, policy and regulatory incentives, and new technologies.

Global electricity demand is growing at its highest rate for years and is expected to reach a new high of 29000 Twh in 2026.[7] At a time when a cycle of rising global temperatures drives greater reliance on climate control systems, increasing electrification, including the proliferation of huge data centres puts a strain on existing capacity.

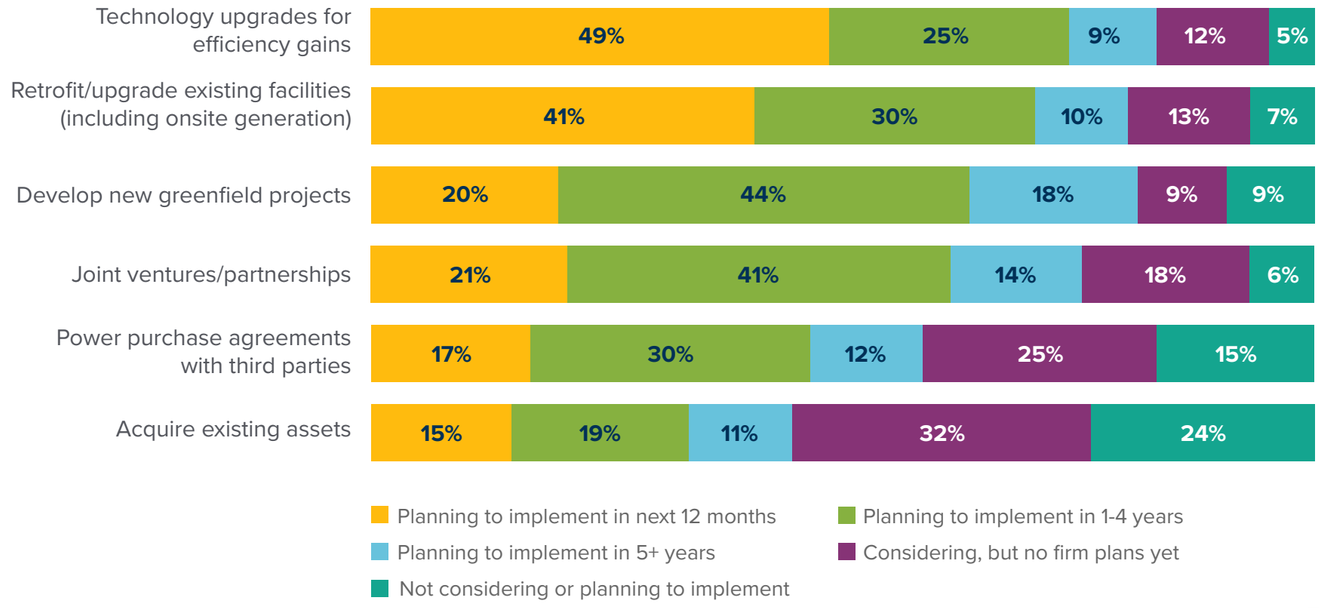
“With the electrification of everything, we are compounding the problem of already not having enough transmission capacity,” says Colin Graham, Partner at Womble Bond Dickinson. “Many market entrants were advancing projects in the UK that had little chance of success, crowding the capacity queue for the stronger, more viable projects, which will now more easily have access to the grid and secure the right offtake, due to reforms in the queueing system. For those projects, getting the right advice on navigating the new process, this represents a real opportunity.”

Today, data centre energy demand is a small percentage of global power demand (1.5%), but it is growing rapidly.[8] AI technology requires increasingly powerful chips to process data and train algorithms, requiring power but also generating heat which requires cooling. As a result, Towner notes that Ireland (where data centres account for around 20% of metered power supply[9]) is looking to limit data centre growth, rather than further facilitate it.

65% of firms plan to develop new greenfield sites within the next four years.



Q: How does your organisation plan to increase energy production capacity (in the next 12 months or 1-4 years)



[7] Demand: Global electricity use to grow strongly in 2025 and 2026, IEA mid year update 2025
[8] Data Centers Bypassing the Grid to Obtain the Power They Need”, Data Center Knowledge, May 1st, 2025
[9] Electricity Mid-Year Update 2025”, International Energy Agency, 2025

What is stifling expansion?

Energy companies and large consumers face multiple obstacles to bringing new capacity online. Infrastructure, grid, and pipeline constraints remain the most pressing challenge, with 65% of firms citing these as a barrier to growth, particularly in the U.S. (71%). While nuclear operators report the highest concern (73%), these constraints are not unique to that sub-sector. The fact that more than two-thirds of U.S. firms overall identify infrastructure as their top challenge underscores that this is a sector-wide issue, not a niche problem.

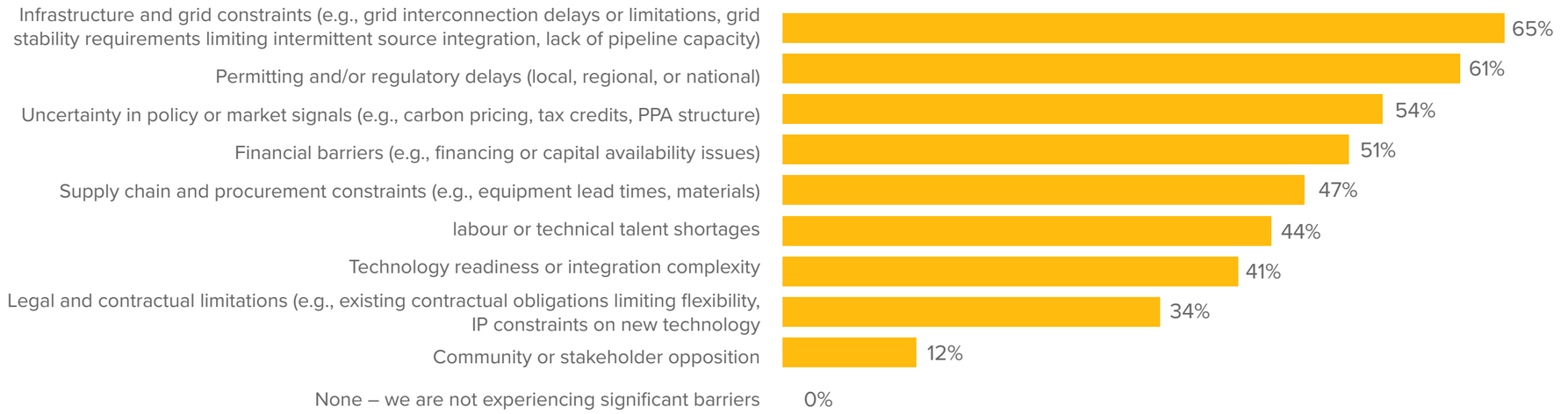
This challenge is followed closely by permitting and regulatory delays, something felt most acutely by firms in Europe. Meanwhile, those in APAC feel financial obstacles, Latin American companies struggle with technology integration, while community opposition delays projects more in the UK.

There is huge, untapped potential in bringing on new production capacity. Companies report that they could expand energy production by an average of 24% if obstacles were removed, with companies operating in the nuclear (28.6%) and offshore wind sub-sectors (2.5%) among those reporting the largest constraints.

Stuart Lunn, who leads the EMEA commercial team at RES, the world's largest independent renewable energy company, sees that addressing just a few of the challenges would give a significant boost to new production.

"Getting the fundamentals right can help avoid many project delays," he says. "This includes strong technical skills and deep policy knowledge to make sure you are developing in the right locations, solid project management, proactive stakeholder engagement, and early coordination with communities, regulators, and the supply chain to ensure the design is right from the start."

Q: What barriers are currently limiting your organisation's (or your clients') ability to bring new energy capacity online?



UK in focus

Only 16% of UK companies expect to grow production capacity in the next 12–24 months, on average, across all sub-sectors. This is led by solar (18.5%) – a figure slightly above the US but behind most other regions. They are also among the most pessimistic about future output, expecting just a 21% improvement even if all barriers were removed, below the 24% global average.

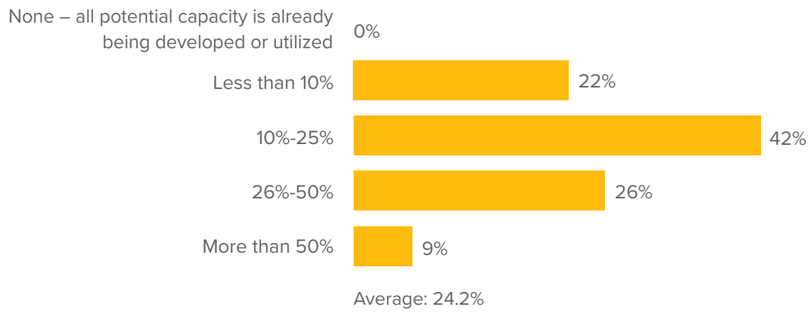
Any pessimism from electricity producers in particular might reflect the huge backlog of power projects in the UK, which the so-called Gate 2 grid connection reform process aims to address.[10] Up to now, some developers were engaging in speculation by securing grid queue positions for projects that were uncertain to ever to reach financial close, often with the intention of selling that grid capacity to other developers with more viable projects. “So-called zombie projects have contributed to significant grid congestion and delays,” says RES’s Lunn.

To manage uncertainty, UK firms are pursuing a mix of new projects, technology-driven upgrades to existing assets, and repowering older sites. Many are also looking to sell down parts of their portfolio, or embarking on strategic partnerships to maintain optimal capital efficiency.

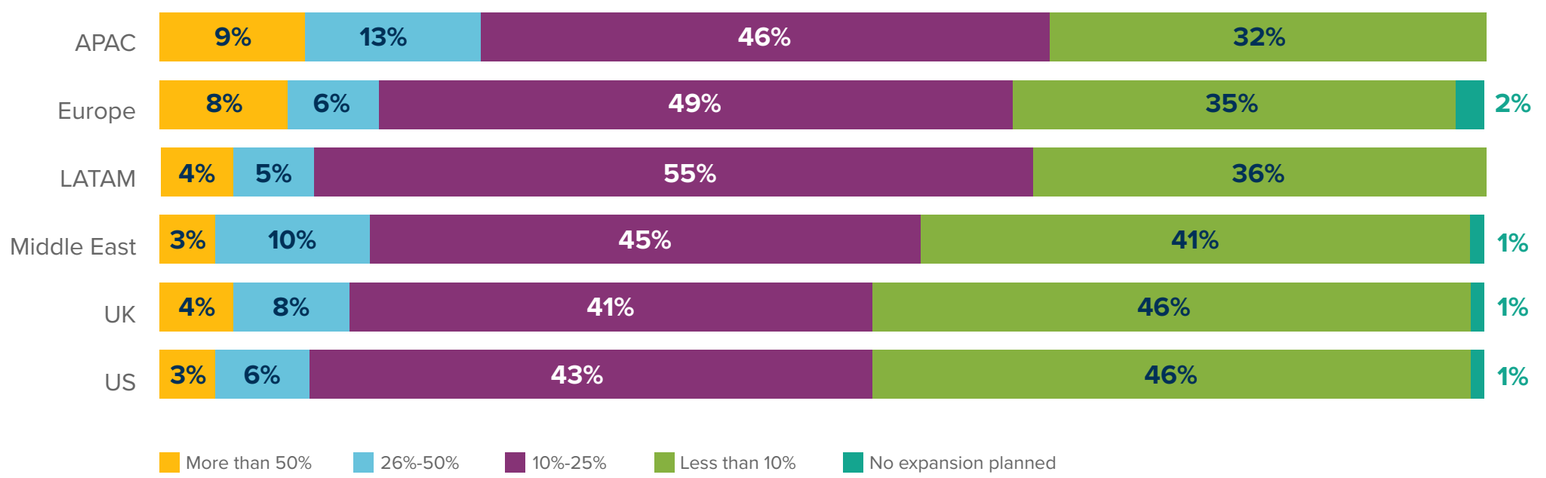
UK companies also feel the pain of stalled project development more acutely: 42% say abandoned projects have significantly impacted their business.

Womble Bond Dickinson’s Towner believes that stronger UK government policy support is needed to deal with the multiple challenges of grid backlogs, slow consents, and local opposition. “The UK’s goal to decarbonise 95% of the electricity sector by 2030 is ambitious, but robust government policy support can help to bridge the gap between aspiration and delivery,” he says.

Q: If existing barriers were removed, by how much could your organisation (or your clients’) expand energy production, relative to current levels?



Q: How much do you expect your organisation (or your clients’) to expand production or generation capacity in the next 12-24 months?



[10] Connections Reform and the Gate 2 to Whole Queue Process, NESO, 2025

RISING COSTS, STALLED PROJECTS

Soaring costs, along with policy and regulatory uncertainty, are crippling new energy projects. Companies operating in the nuclear, energy retail, hydrogen, oil and gas, and offshore wind sectors are hardest hit financially, while those working in faster-deploying solar projects are less impacted.

Delays and barriers to bringing new energy production online are placing companies under intense financial, reputational, and operational pressure. More than three quarters (79%) of businesses say increased costs have had a significant or moderate impact on their business, with little variation across industry sub-sectors. Meanwhile, a third (34%) say projects being abandoned have had a similar impact.

Across the industry, the financial toll of delays is substantial. On average, across all countries and sub-sectors, companies lose an estimated US$325m in annual revenue due to projects stalling before coming online.

Capital-intensive sectors feel this most sharply. Companies operating in the nuclear sub-sector report missed annual revenue opportunities exceeding US$600m per firm.

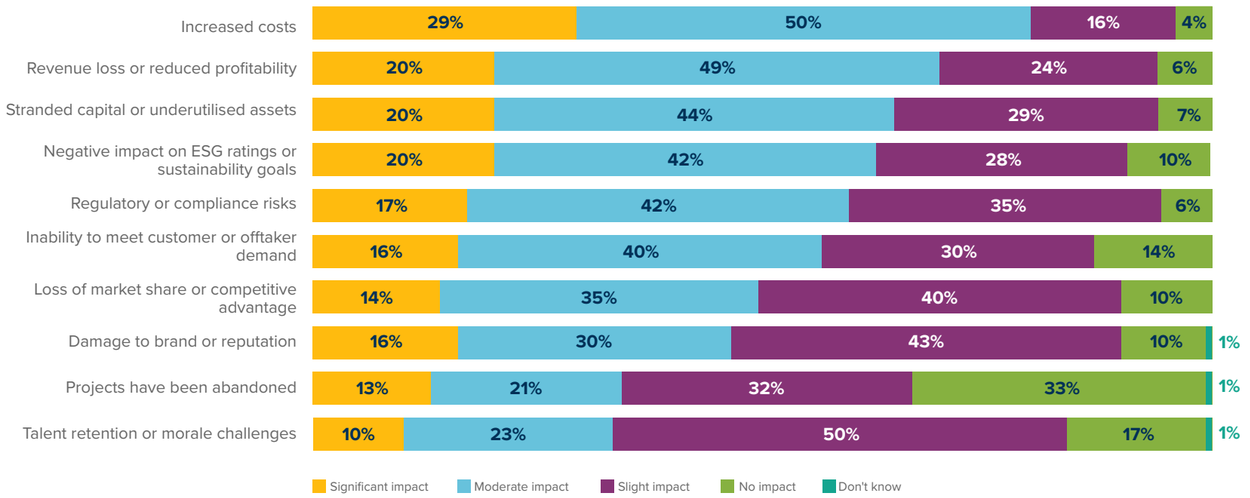
“Nuclear projects face huge upfront costs and long timelines, and today’s investors must assess assets that may operate for 60, 80, or even 100 years,” says John Volkoff, Vice President of Special Projects at Excel Services Corporation, the specialist nuclear industry service provider. “Developing and financing something that could still be running a century from now is one of the sector’s toughest challenges. This includes the significant up-front capital cost with no return on investment for six years.”

Tom Dougherty, Partner and leader of Womble Bond Dickinson’s Nuclear team, agrees. “The nuclear sector faces unique issues. These might be overcome by a more supportive regulatory environment, the use of AI to streamline permitting and construction, and potential commitments for multiple reactors. Technological and manufacturing developments associated with small modular reactors and microreactors may also facilitate broader nuclear energy deployment.”

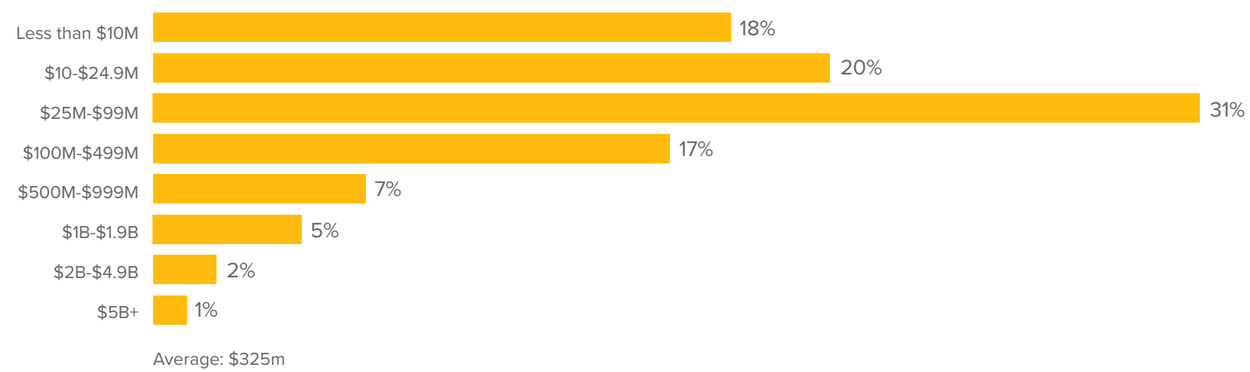
Companies operating in other subsectors, including energy retail, hydrogen, oil and gas, and offshore wind, also report high missed revenues. Solar stands out as an exception, with shorter build times and fewer regulatory hurdles helping keep delays and revenue losses down.

77% of firms say permitting delays and legal risk undermine the economic viability of new projects.

Q: What impact, if any, have delays in bringing new energy capacity online had on your organisation (or your clients’)?



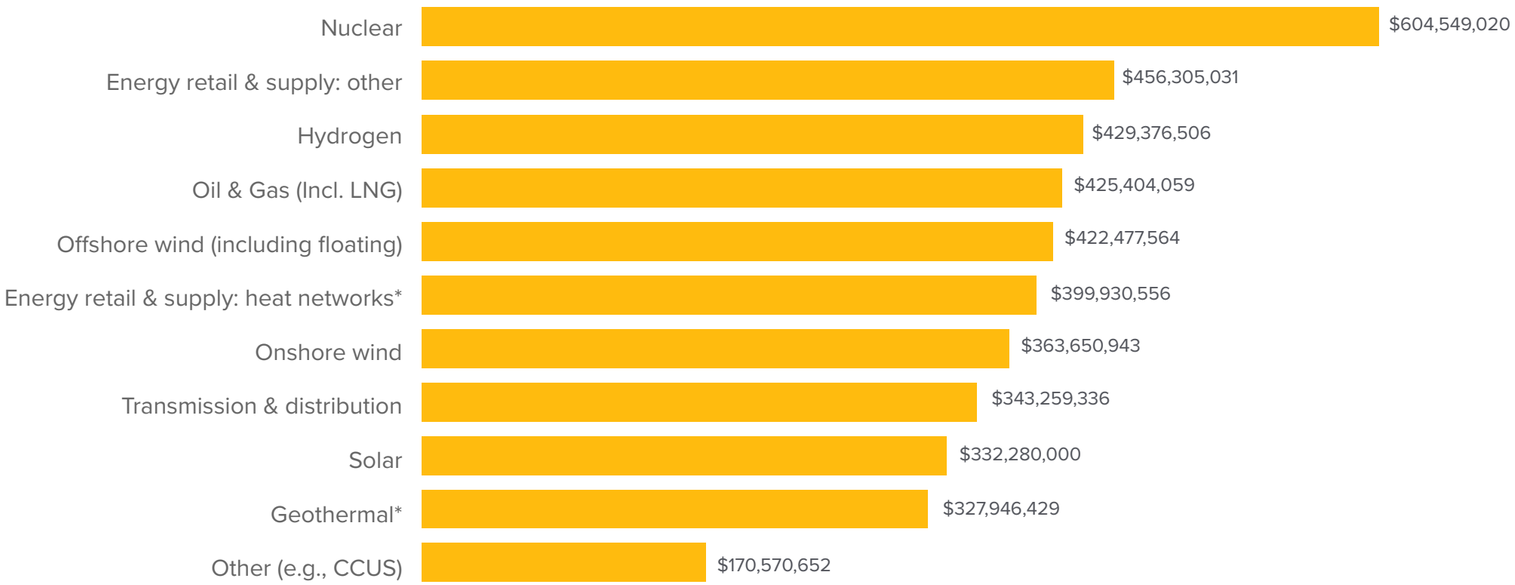
Q: Approximately how much annual revenue has your organisation (or your clients’) missed out on due to delays in bringing new capacity online?



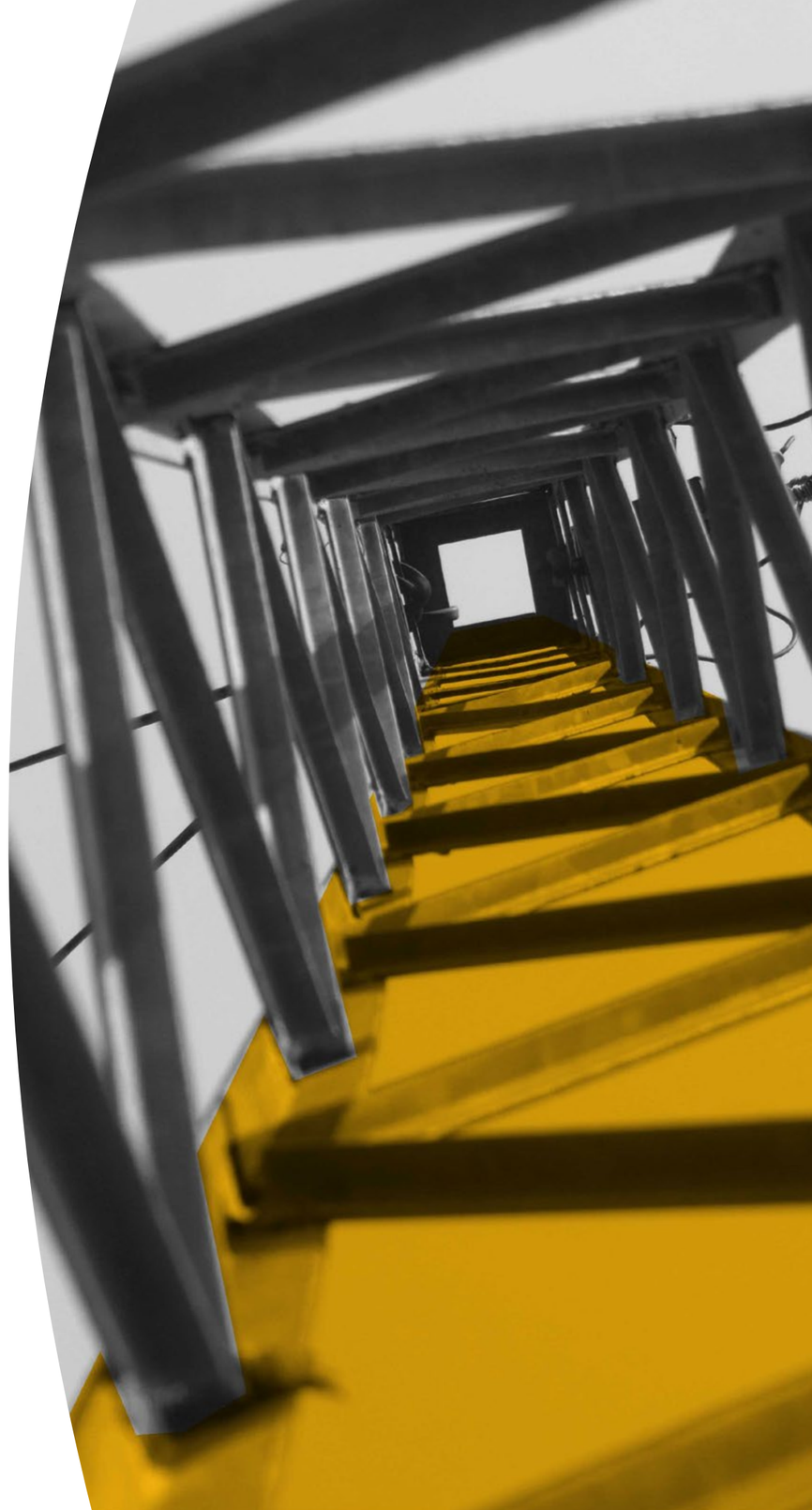
The financial impact of project delays is most acute where high capital costs intersect with regulatory complexity. Addressing either factor in isolation is unlikely to close the revenue gap; it is the interplay between the two that drives the hierarchy of risk across the energy sector.

Jeffrey Whittle, Global Sector Leader – Energy and Natural Resources

Q: Approximately how much annual revenue has your organisation (or your clients') missed out on due to delays bringing new capacity online?



*Sample size is <40 so not large enough to be representative



INSIGHT 3

THE SELF-GENERATION RESPONSE

Project delays drive up costs and push large energy users to adopt ‘behind-the-meter’ self-generation strategies. Firms surveyed expect to self-generate nearly a quarter of their power, mainly through solar and natural gas.

Large energy consumers, including data centres and manufacturers, struggle to secure new power capacity, leaving them exposed to rising energy costs and operational risks. Nearly one in five say reliance on temporary diesel or gas backup has caused significant disruption.

With supply constraints showing little sign of easing, firms increasingly turn to self-generation as a core component of their energy strategy. On average, they expect to meet 23% of their power needs internally within the next one to three years, seeking to control costs, reduce risk, and secure reliable access to energy. Most of this self-generated capacity is expected to come from solar and natural gas. For UK-headquartered operators with EU footprints, the Energy Efficiency Directive datacentre reporting regime is now live, and the Commission is preparing a Data Centre Energy Efficiency Package in early 2026, tightening performance expectations and influencing siting and procurement decisions.[11]

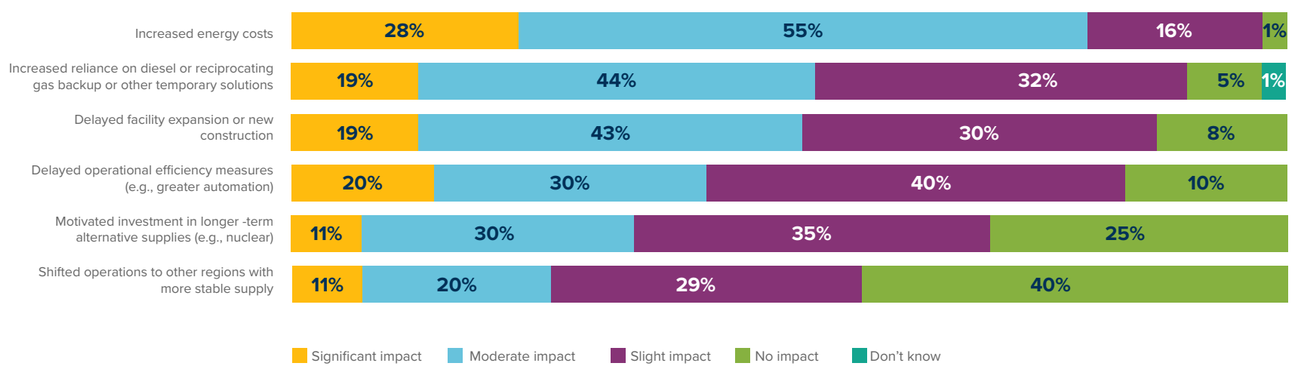
The pressure is most intense for data centres – more than 60% explore onsite generation, with over 35GW expected to be self-generated by 2030.[12] But Tim Martin, a leading arbitrator, counsel and expert in energy, oil and gas, and infrastructure and author of Joint Venture Disputes in the Energy and Natural Resource Sectors, warns these private generation projects could face the same permitting, regulatory, and dispute risks as utility-scale developments if not carefully planned.

“Running an energy project isn’t the same as running a utility or a construction firm, you need the ability to manage government, regulators, partners, competitors, and complex contracts,” he explains. “The leading oil and gas companies do it best. They are exceptional project managers who can bring together the right mix of skills to deliver large, complex projects.”

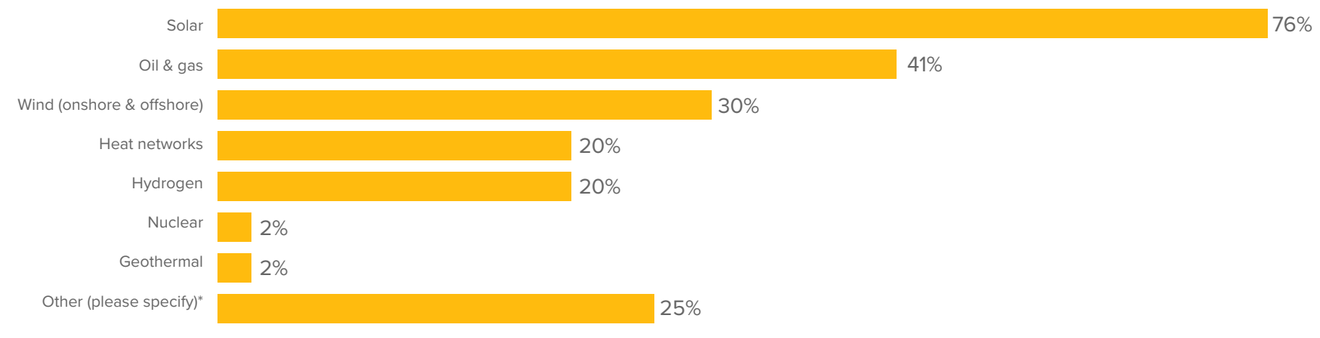
Solar is the top choice for self-generation, but its intermittency requires that it be paired with more reliable resources and/or energy storage. Natural gas is the second most popular option, valued for its flexibility and balancing capability.

“Natural gas continues to serve as the bridge fuel,” says Whittle, of Womble Bond Dickinson. “Demand is huge, and we continue to see massive long-term LNG supply contracts being signed across major markets.”

Q: To what extent have power supply constraints impacted your organisation’s operations or investment decisions?



Q: Which additional energy sources have your business implemented due to lack of grid supply?



*Biomass, hydroelectric, natural gas, energy generation from waste

[11] Energy-efficient, sustainable data centres', European Commission, 2025
[12] Data Centers Bypassing the Grid to Obtain the Power They Need", Data Center Knowledge, May 1st, 2025

UK in focus

85% of UK energy consumers say increased energy costs are having a significant or moderate impact on their business, according to our survey. This is perhaps not surprising; the UK has some of Europe's highest power prices (wholesale electricity prices rose 40% year on year in the first half 2024[13]) while UK steelmakers pay up to 25% more in electricity prices than their European counterparts[14].

While the UK Industrial Competitive Scheme (from 2027) aims to ease costs, RES' Lunn warns: "It's important that the UK government continues to introduce reforms to create a decarbonised system, but they need to be cognisant of energy investors and maintain overall market stability, particularly regarding electricity pricing, grid charges, especially with all the inflationary pressures on construction."

In the UK it's cheaper to generate your own electricity as you avoid gas price fluctuations; don't pay network charges; and avoid some policy costs for schemes like Warm Home Discounts and Capacity Generation Cover. There's a regulatory risk that if too many people produce their power behind-the-meter, this may change.

Chris Towner, UK Sector Leader – Energy and Natural Resources

[13] Electricity Mid-Year Update 2025", International Energy Agency, 2025
[14] High Energy Prices Weigh on UK Shift to Low Emission Steelmaking," Financial Times, November 14th, 2025

INSIGHT 4

WHERE PROJECTS GO OFF TRACK

Contractor disputes, cost escalations, and force-majeure shocks are the top obstacles derailing projects. These are more common in the nuclear sector. Companies also deal with permitting and planning issues, and regulatory inconsistencies.

The most common disruption to projects across all regions are contractor issues and cost escalation, with 79% and 75% citing them as an issue, respectively. Challenges related to force majeure, unforeseen events, and regulatory change are also common.

Contractor disputes are a particular concern among companies operating in the nuclear subsector, with 94% citing them as an obstacle. Excel Services Corporation's Volkoff notes that the nuclear sector's circumstances are complicated by the dual challenge of high safety standards and talent shortages.

The most significant causes of disruption to energy projects during permitting and planning are the lack of regulatory clarity or rules changing mid-project (with 70% of firms experiencing this), and delays obtaining environmental permits (67%).

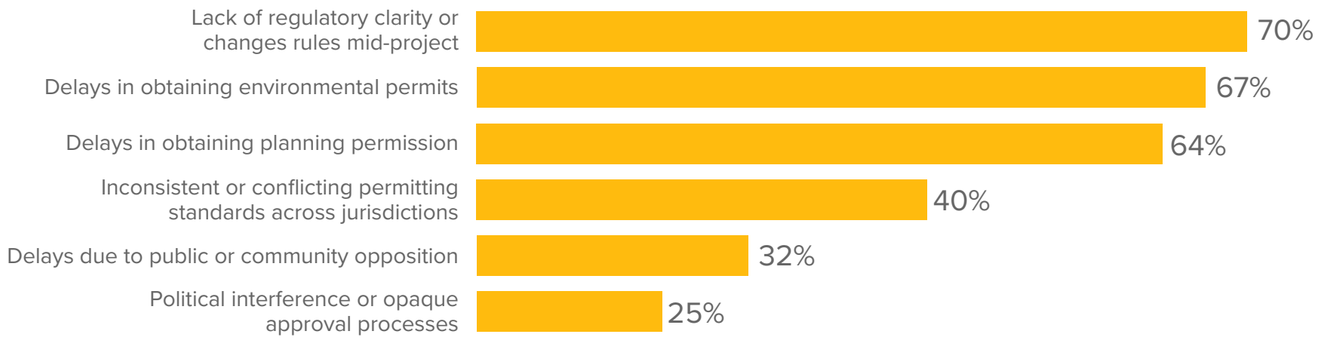
Womble Bond Dickinson Partner Sebastian Briggs notes that changes of government can play a big part in regulatory uncertainty. "Policy often changes under new administrations," he says. "Changing government attitudes to renewable energy targets can cause investor unease."

Progress is being made on permitting in some regions, notably Germany. The European Commission has recognised that new renewable energy projects are being impeded by long and complex planning processes, and intends to review and potentially adapt policy frameworks alongside member states.[15] In 2022, it launched REPowerEU to accelerate the clean energy transition, which included setting up renewables acceleration areas (RAAs), to streamline permitting and speed up project delivery.[16]

Lunn, from RES, points out that since the EU introduced accelerated permitting rules, Germany is the only country to fully implement them in full, streamlining environmental assessments and requiring states to process permits within two years. "In other countries, the complexity of planning regimes can still slow down projects, but Germany proves what's possible when reform is done well," he says.

Q: What have been the most significant causes of disruption to your energy projects related to contracts and disputes?

Q: What have been the most significant causes of disruption to your energy infrastructure project when it comes to permitting and planning?



[15] EU renewable energy sector faces ongoing challenges amid regulatory changes, Questiqa Europe, January 7, 2026
[16] EU acts to accelerate renewable energy permitting, unleash repowering", Reuters, December 5th, 2022

UK in focus

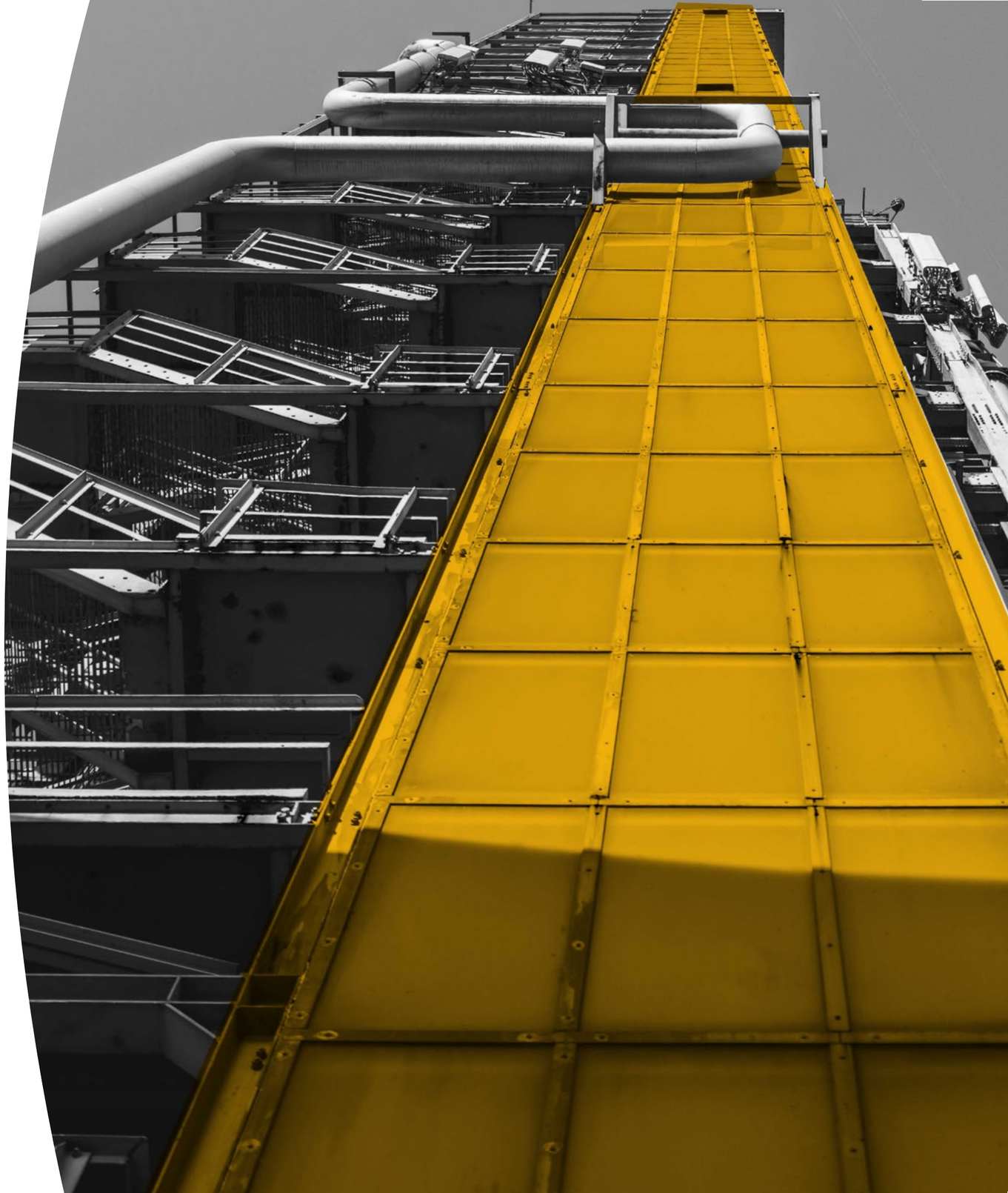
UK companies also cite contractor and cost escalation issues delaying projects, but they were of less concern here than in other regions. However, more than 45% of UK firms say arbitration or litigation across jurisdictions has disrupted projects, higher than other regions, with some dispute arising from changing regulations or planning issues.

Delays due to public and community opposition are more of a concern in the UK than elsewhere (42% cite it as an issue, compared with the 32% global average). UK project developers stress the importance of early community engagement to secure a social licence to operate. “Early community engagement is essential to allow local knowledge and community views to shape project design and delivery,” says Womble Bond Dickinson Partner Victoria Redman. “Equally, starting collaborative discussions with regulators and permitting bodies right at the start, and sustaining them, is key to building trust and avoiding unexpected objections or regulatory hurdles later on.”

Regulatory change causes legal challenge against UK’s Ofgem

Zenobē Energy has launched a legal challenge against Ofgem’s proposed cap-and-floor scheme for long-duration energy storage (LDES), arguing it could distort existing storage markets and raise consumer costs. Zenobē claims the LDES scheme risks undermining competitive storage markets and increasing costs, alleging Ofgem did not accurately assess subsidy control principles before proposing it.[17]

[17] Why we’re challenging Ofgem’s Long Duration Energy Storage scheme,” Zenobe Energy, November 7th 2025



INSIGHT 5

SMART MITIGATION STRATEGIES

Companies use many strategies to deal with project disruptions and delays. Building strong regulatory and community relationships and legal team expertise early remains the most effective path to success.

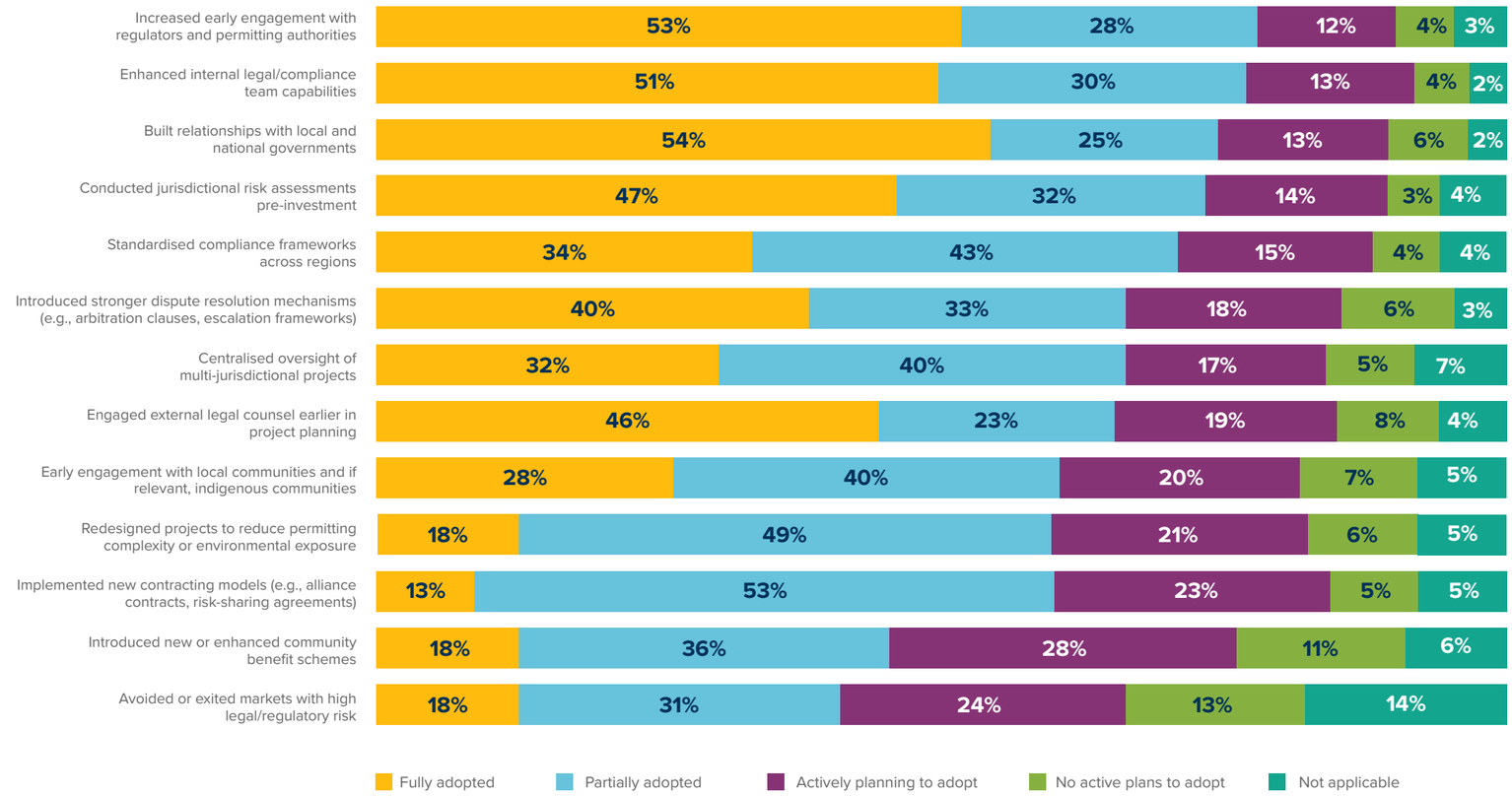
Companies use a variety of preventative strategies to reduce the impact of project delays. The three most common include prioritising early engagement with regulators and planning authorities (81% of firms have fully or partially adopted this), strengthening legal teams to pre-empt project problems and avoid disputes (81%), and building relationships with local and national governments (79%).

The most effective strategies at reducing legal, contractual, or permitting disruptions are robust jurisdictional risk assessments and relationship building with local and national governments (71% cite these as ‘very effective’). The most common emerging strategy identified in the research is enhanced community benefit schemes. While only 15% of firms have ‘fully adopted’ this, 28% are ‘actively planning to’.

“When we develop a project, we want to ensure it adds value to the local area,” says Lunn at RES. “We have a unique Local Electricity Discount Scheme, whereby if you live within a certain proximity to the wind farm, you’re eligible for a discount on your electricity bill. We can arrange this directly with their supplier because the people that are hosting these projects should rightly see some of the benefit from them.”

79% of firms have prioritised building relationships with local and national governments.

Q: What measures has your organisation taken to overcome or mitigate legal disputes, contract-related disruptions, or permitting delays in your energy projects?



Nearly half (49%) of firms say that introducing stronger dispute resolution mechanisms had been ‘very effective’. This could include robust arbitration clauses, escalation frameworks, and options for renegotiation, to effectively resolve project disputes.

“Drafting an effective and enforceable arbitration clause is especially important in cross-border projects to ensure a neutral forum in which to resolve disputes,” says Alexandre de Gramont, leader of Womble Bond Dickinson’s International Disputes Practice. “For projects in most countries, companies should also consider structuring their ownership interest in the project to ensure the protection of international investment treaties, which often provide robust protections for the investor and recourse to international arbitration against host governments.”

Womble Bond Dickinson’s Graham adds that as well as strategies for overcoming project barriers, utility-led energy demand management and consumer engagement should also be in focus to better manage the energy system generally.

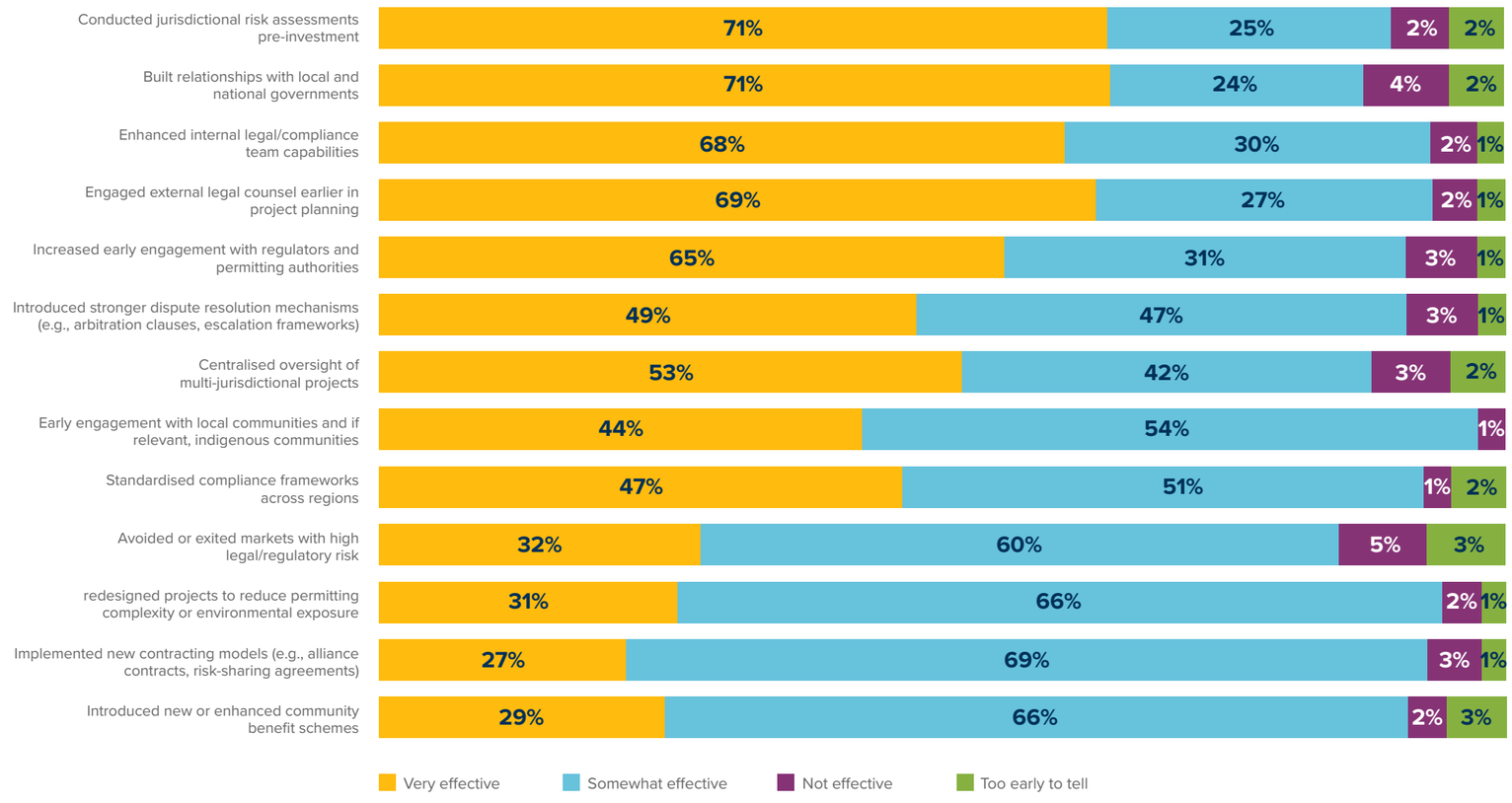
UK in focus

UK companies use a broad mix of strategies to manage project disputes, but unlike in other regions, no single approach dominates. The most effective measures include engaging legal counsel early and adopting new contracting models such as alliance contracts and risk-sharing agreements.

The UK, along with the Middle East, tends to take a more defensive stance, with companies avoiding or exiting markets with high legal or regulatory risk (55% versus the 39% global average).

The most effective UK developers get ahead of the issue, engaging suppliers and investors early to clarify who carries risks such as regulatory changes or tariffs. As Briggs from Womble Bond Dickinson puts it: “They ensure upfront conversations with stakeholders about who takes on what risks and at what stage in the project development process.”

Q: To what extent have these strategies been effective in reducing legal, contractual, or permitting-related disruptions?



Energy demand will continue to grow and demand side management is becoming technologically more available. Stronger consumer engagement by utilities can ease the pressure on the energy system as market participants see the benefit of technology investment to help them cut power usage and costs.”

Colin Graham, UK Partner – Energy and Natural Resources, (International)

INSIGHT 6

THE COST SQUEEZE

Increasing capital costs force more than half of firms to renegotiate contracts and delay time to market. In the hardest-hit sectors, notably nuclear and hydrogen, cost spikes drive timeline extensions and restructuring.

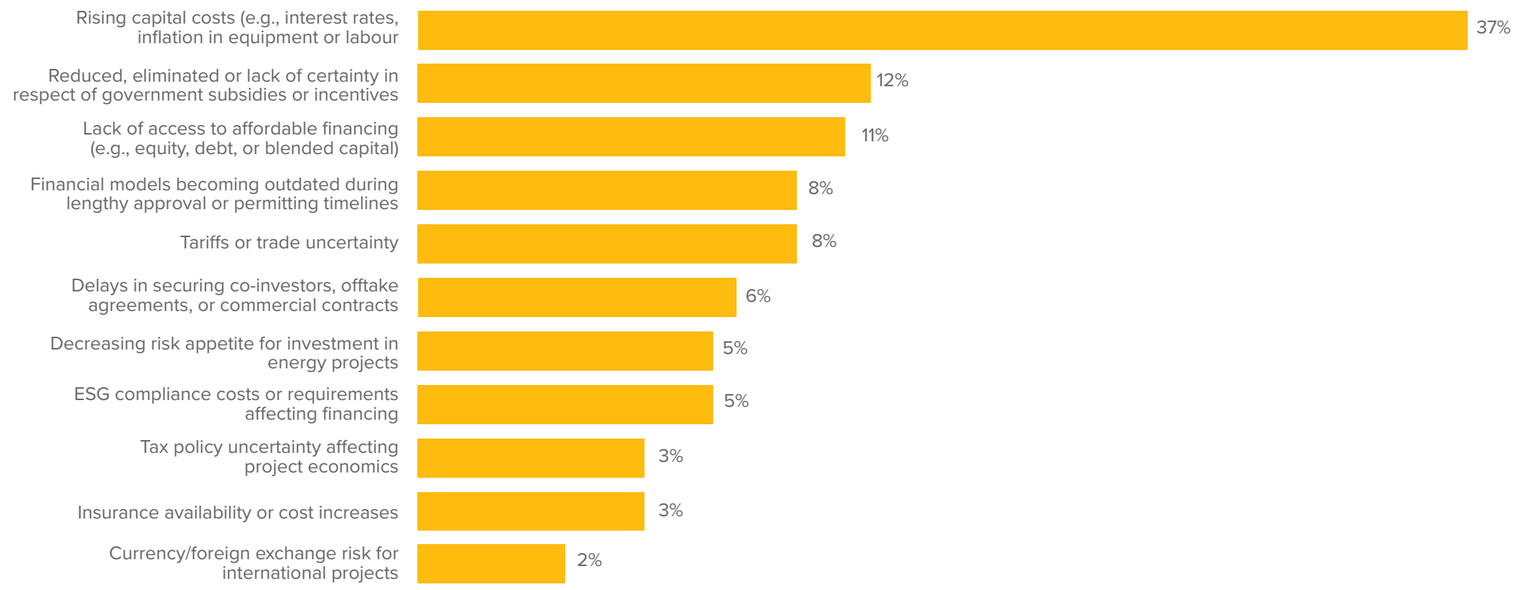
Project costs are rising fast, with firms reporting an average 21.2% increase between quotation and construction, across all regions and sub-sectors, and 57% of respondents said projects now need contract renegotiations just to stay viable, rising to 65% amongst those operating in nuclear. Unsurprisingly, companies say the biggest benefit of removing funding barriers would be a faster time to market.

Across the industry, rising capital costs have become the top funding challenge, driving delays, renegotiations, and cancellations. Uncertainty around government incentives, and financial models becoming outdated during long approval and permitting cycles, adds even more strain. Companies in the Middle East report the sharpest cost inflation, while those in the US see the lowest.

Firms operating in the nuclear and hydrogen sub-sectors report the highest price increases between quotation and construction.

Nuclear	23.0%
Hydrogen	23.0%
Oil & gas	22.9%
Offshore wind	22.1%
Energy retail & supply: other	22.1%
Solar	21.6%
Onshore wind	21.1%
Transmission & distribution	20.8%
Geothermal	20.5%
Other	20.2%

Q: Which of the following funding-related challenges have caused delays, scaling back, or cancellations of energy projects in your organisation (or your clients') over the past two years? (Ranked number 1)



Companies operating in the nuclear and hydrogen sub-sectors face the most acute price escalations, rising 23% between quotation and commencement of construction, closely followed by oil and gas (22.9%). This can force frequent contract reopeners, extended timelines, and additional fundraising. Womble Bond Dickinson's Whittle notes that projects lasting longer than five years almost always require contract changes.

To cope, the nuclear sector is shifting towards more flexible financing structures. "Previously governments had to be involved to share or simply take on the burden of cost overruns," says Womble Bond Dickinson's Graham. "Now the aim is to structure these projects as lower-risk, lower-return assets, the type of project a pension fund would invest in."

This push for contract flexibility is becoming best practice across long-term energy projects. Reopener clauses have become common in LNG contracts in Asian markets.[18] They allow built-in triggers for renegotiation or arbitration, preventing disputes from escalating into lengthy, costly battles.

The financial toll can be substantial: more than 60% of companies report reduced returns, more than half renegotiate supplier contracts, and many face prolonged delays while financing is restructured. More than 15% of projects end up cancelled or abandoned.

These pressures are reshaping investor behaviour. Whittle notes: "Renewables tend to attract investment after planning approval, when project certainty is highest, while complex and high-cost sectors like nuclear must secure investors from the very beginning, even before permitting starts to maintain momentum. Ultimately, rising project costs, regulatory bottlenecks, and financing friction reshape how and when energy projects get funded."

[18] Price Reviews: Are Asian LNG Contract Terms Finally Changing? Natural Gas World, October 17th, 2019

[19] Trade under pressure: how are businesses responding to rising uncertainty?", British Chamber of Commerce, November 3rd, 2025

Womble Bond Dickinson Partner and Financial Institutions UK Sector Leader sees that funding timing for large energy projects depends on risk appetite. Generally, debt funders enter as late as possible, once planning, construction contracts, pricing, and grid connection are locked down. Equity funders engage earlier, taking on technology and development risk, especially in emerging or first-of-kind projects.

He notes that grid uncertainties and changing regulations can deter potential power investors, with shifting grid-connection rules and queue reforms making them more wary. "There is no real protection against grid delays," he says. "Funders simply withhold capital until grid connection is secured. Equity may move earlier; debt will not."

UK in focus

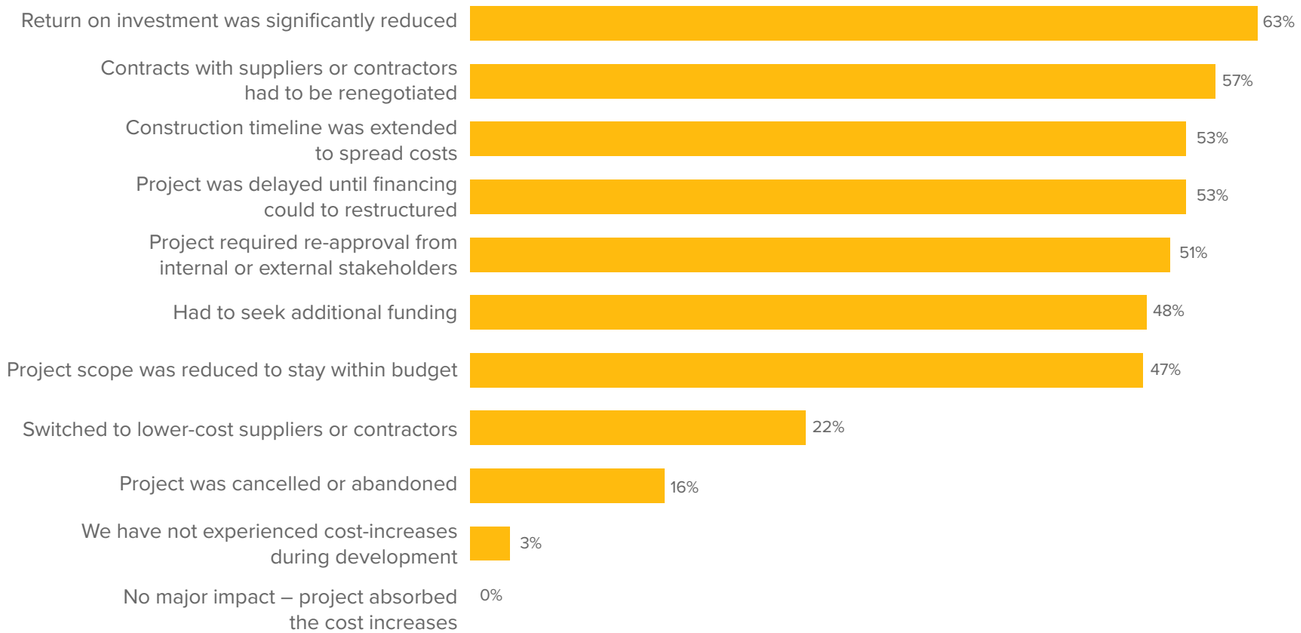
UK companies face rising capital costs like their global peers, but the impact is sharper due to policy uncertainty, financial models that become outdated, and limited access to affordable financing.

Unlike other regions, UK firms are less likely to renegotiate contracts or secure new funding, leaving them more exposed to cost inflation.

They also face heavier tariff and trade pressures than US firms. The British Chamber of Commerce warns that political and regulatory uncertainty, which intensified after Brexit, has become the biggest barrier to investment. It also notes that uncertainty itself has overtaken tariffs as the leading trade challenge across many regions in 2025, including the UK.[19]

Womble Bond Dickinson's Connor highlights that the UK could follow the US, where pension funds and insurers already invest in long-term energy projects and infrastructure. "Some of the combined authority pension funds are starting to look at using their balance sheets for lending. I believe they will find their way into energy infrastructure investment in the UK," he says.

Q: What impact have cost increases between the initial quotation and commencement of construction had on your energy projects?



Some of the combined authority pension funds are starting to look at using their balance sheets for lending. I believe they will find their way into energy infrastructure investment in the UK.

John Connor, UK Sector Leader – Financial Institutions

INSIGHT 7

TECHNOLOGY CAN FILL THE GAP

Project bottlenecks mean companies increase investment in technology to fill production gaps. AI, infrastructure upgrades, and predictive maintenance allow companies to squeeze more output from existing assets and improve efficiency.

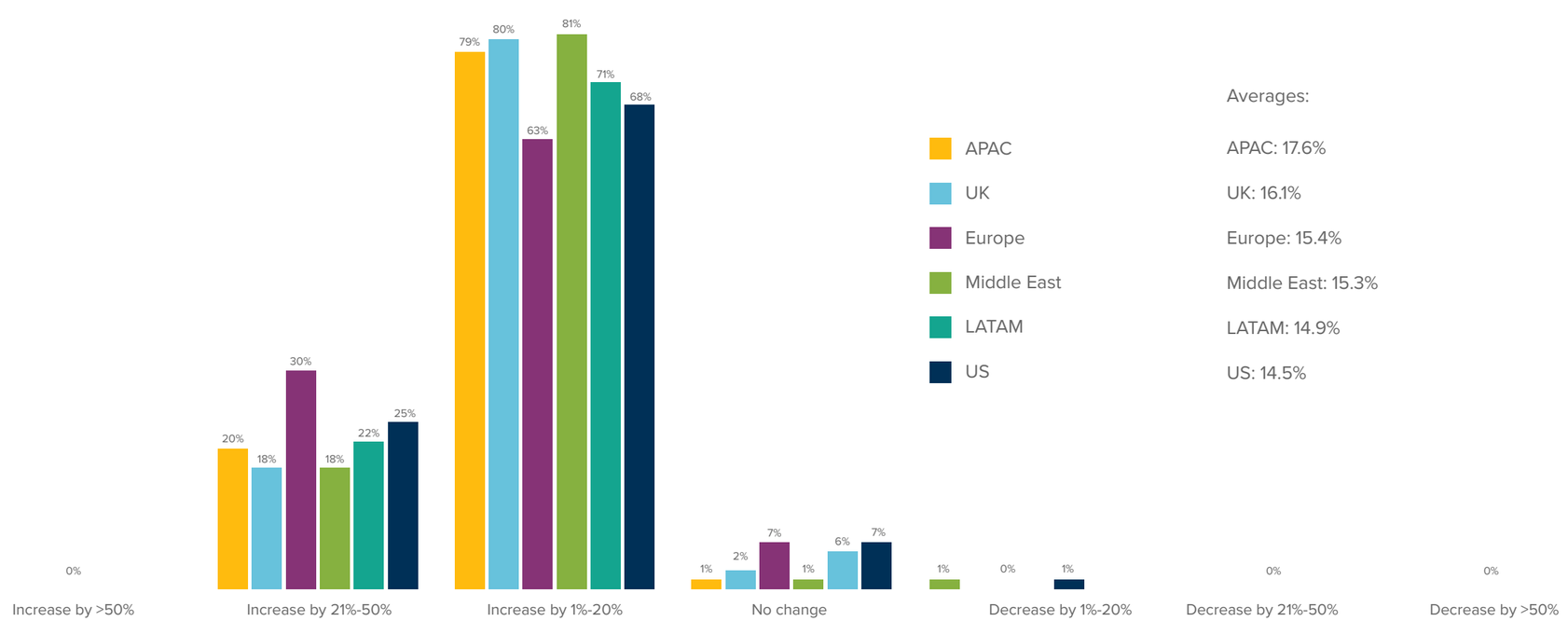
With many production-expansion projects stalled, companies lean heavily on technology to hit their capacity goals. Technology investment for energy-supply optimisation is predicted to rise almost 16% in 2026, on average across all sub-sectors, and led by nuclear (18%) and geothermal (17.9%) – signalling a major shift towards digital and data-driven solutions.

APAC and the UK lead planned increases, while US companies, despite expecting the smallest overall technology spend, plan the highest spend on AI, alongside the Middle East. In our Energy Outlook 2025 report, AI's value was observed in enhancing existing operations, but by less than 50% of the participants, with significant differences in regional priorities.

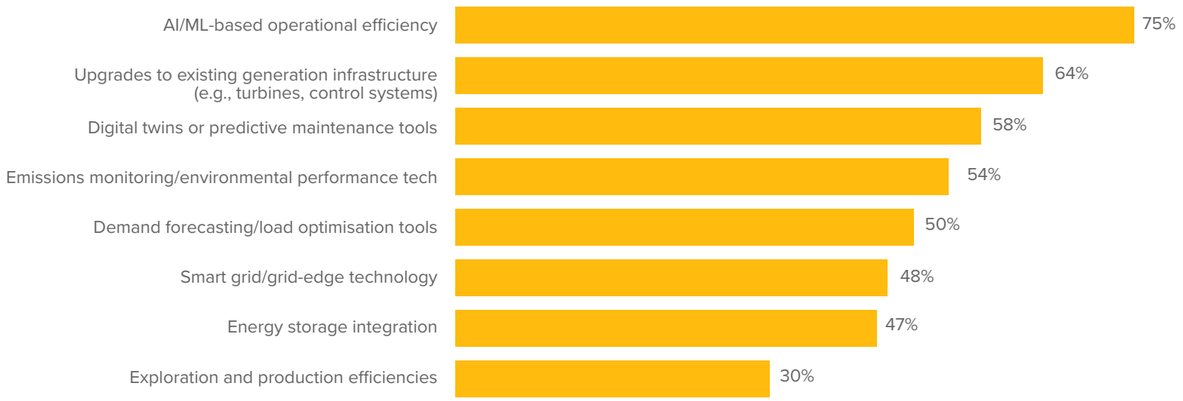
This year marks a surge in technology investment, with companies leaning heavily on digitalisation and automation to boost output from existing assets.

Top priorities include AI/ML (75%), infrastructure upgrades (64%), and predictive maintenance/digital twins (58%). The latest survey data reveals that two thirds of companies (67%) already invest in AI for operational efficiency and predictive capabilities, up from 45% in last year's survey.

Q: How do you expect your organisation's technology investment budget for energy supply optimisation to change over the next year?



Q: Which areas of technology investment are you prioritising to increase energy supply or improve system performance?



AI is already being used to autonomously balance supply and demand across distributed grids, minimise waste, and prevent outages, with AI digital twins being used to model and analyse electric distribution and sub-transmission networks[20]. Beyond AI, most other leading technology investments have significant digital components, reinforcing the trend towards a more resilient and sustainable grid through predictive maintenance and advanced demand-side management.

While energy generators and retailers are leading the way, most sectors see its potential. In the nuclear industry, Excel Services Corporation's Volkoff notes that "I see potential for AI in regulatory processes too, even if the most useful applications are still emerging."

This could resemble the funding structures used in other sectors experiencing investment surges, such as new-build university accommodation in the UK. Here, investors are routinely asked to rely on assurances of high occupancy; to justify the capital spend and long-term debt facilities needed to build and repay the projects.[21]

"It all depends on the context and the type of project that we're talking about," says Womble Bond Dickinson's Connor. "But performance guarantees should be something that an energy investor can consider."

For energy companies, AI is no longer just about efficiency, it's about building intelligent operating systems to navigate a complex energy future. This shift is about turning vast data — from sensors to market signals — into predictive power.

Karthika Perumal, US Partner – Houston Office Managing Partner

[20] ThinkLabs AI achieves results in AI-powered grid analytics, Globe newswire, January 6, 2026
[21] PBSA investment activity hit record high in Q3 2025", BE News, November 11th 2025

LIGHTING THE WAY AHEAD

Companies can take the following steps to improve project delivery, minimise delays and disputes, and accelerate time to market to meet growing energy demand:

1

Initiate collaborative planning with regulators and permitting authorities from the very start of the project

Early dialogue will certainly reduce compliance and permitting risks. However, moving beyond early engagement to a strategic, collaborative planning approach with stakeholders, including regulators, planning authorities, and communities, throughout the entire project lifecycle, is essential. Continuous, two-way collaboration delivers significant value; building trust, accelerating approvals, and enabling project teams to anticipate and adapt to evolving expectations. This helps minimise the risk of late-stage opposition or unexpected regulatory hurdles.

2

Build agile systems for policy and regulatory change

Develop internal systems and processes that enable rapid response to policy changes and regulatory shifts, including horizon-scanning and scenario planning. Adaptive contracting, increasingly used in large-scale projects, provide a modular approach based on project needs to mitigate the risks of a dynamic business landscape. Consider building cross-functional teams that monitor and model the impact of new legislation, market signals, and geopolitical events in real time. Be prepared to manage regulatory changes mid-development and to structure contracts that mitigate cross-jurisdictional risk. In complex and competitive projects, leverage skilled internal and external legal teams to maintain project momentum.

3

Design for investment

Investors increasingly seek projects with clear risk allocation, transparent performance metrics, and financing structures that can adapt to changing market and regulatory conditions. Integrating advanced project management tools provides real-time visibility into cost, timeline, and stakeholder engagement, helping investors assess viability and risk. A phased approach to development enables incremental investment and de-risking, making projects more attractive to a broader range of capital providers, including pension funds and impact investors. Projects that combine contractual clarity, contingency planning, and modular financing are best positioned to withstand disruption and deliver long-term, investable returns. As investor expectations evolve, firms that improve planning, cost management, and stakeholder engagement can secure commitments earlier in the development cycle.

4

Structure projects to allow for effective dispute mitigation

Rising costs are leading to more project renegotiations and restructurings. When developing contracts, consider a range of strategies, including robust arbitration clauses, escalation frameworks, and options for renegotiation, to effectively resolve inevitable project disputes. Where feasible, contractors may prefer renegotiation over lengthy, costly disputes, as formal mechanisms like standing dispute boards can be prohibitively expensive. For major, long-term projects, such as nuclear power stations, the scale and duration of risk, particularly the potential for severe cost overruns, can threaten both project and company viability. Digital transparency is also emerging as a critical enabler of effective dispute mitigation. By integrating digital contract management platforms and advanced project management tools, companies can achieve real-time visibility into contract performance, emerging risks, and compliance status. This transparency supports proactive renegotiation and risk management, enhances stakeholder confidence, and reduces the likelihood of disputes escalating into costly litigation.

5

Leverage AI, but keep governance robust

As project delays drive greater reliance on technology, companies are accelerating AI adoption, not only to maximise output from existing energy assets, but also to gain strategic advantages in asset optimisation, market forecasting, and stakeholder engagement. However, while AI use is rising rapidly, the true leaders are those who treat governance as a strategic imperative, rather than a compliance exercise. Weak governance, unclear ownership, and poorly defined contracts can expose organisations to significant legal and operational risks, including compliance issues, data misuse, and liability for inaccurate or biased outputs. Embedded AI may lack transparency or control, and inadequate oversight can result in regulatory non-compliance and limited auditability. To unlock the full value of AI while managing these risks, companies should establish clear accountability for model outputs, ensure transparency in vendor relationships, and regularly audit algorithms. AI deployment should be approached as a cross-disciplinary challenge, involving legal, technical, and operational teams, with contracts and procurement processes that address performance, liability, and data management throughout the AI lifecycle.

In summary

Recommendation	Established practice	Leading practice
Stakeholder engagements	Front-end planning	Strategic co-design, continuous collaboration
Regulatory change	Horizon-scanning	Institutionalised flexibility, adaptive contracting
Investment	Robust design	Investability, optionality, digital transparency
Dispute mitigation	Arbitration clauses	Transparency through digital platforms
AI adoption	Operational optimisation	Strategic advantage, cross-disciplinary governance

THE FINAL WORD

The 2026 Energy Outlook report highlights a demanding decade ahead for energy players with modest capacity growth, grid bottlenecks and connection delays, rising project costs, high project abandonment, and persistent policy and regulatory uncertainty. Yet the story is not one of constraint, but of choice. Developers and operators can diversify routes to market, engage early and consistently with communities and regulators, adopt adaptive and smarter project structures (including self-generation and behind-the-meter models), invest in dispute avoidance and production-optimisation technologies, and rigorously allocate and price risk. Taking these steps will better position developers and operators to turn today's friction into a platform for cleaner, more resilient power and tomorrow's competitive advantage.

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SURVEY METHODOLOGY

The survey was conducted in autumn 2025. It gathered 650 respondents across the US, UK, Europe, Asia Pacific (APAC), Latin America (LATAM), the Middle East, and Africa, evenly split between energy companies, investors, EPC/service providers, and energy-intensive consumers (data centres and industrial manufacturers). Respondents spanned multiple subsectors and revenue sizes, in roles that included executives and leaders in legal, strategy, planning, and project development roles.

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