ANSARADA
PROCURE

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Infrastructure

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Empowering the process

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01 Introduction

Delivering the energy transition

Global investment in renewable energy infrastructure accelerated in the past 12 months, but the nature of the challenge facing developers, governments and investors is changing.

The question is no longer whether enough capital exists to fund the energy transition, nor whether renewable technologies are cost-competitive. Instead, pressure is building around the practical ability to deliver large-scale, integrated projects on time and on budget.

Grid capacity shortfalls, transmission build-out timelines, infrastructure procurement inefficiencies, permitting delays, supply-chain vulnerabilities and a stubbornly high cost of capital are the binding impediments to progress.

Governments are responding by reframing policy frameworks around energy security, recognising that reliance on imported fuels has become a strategic vulnerability in an increasingly volatile geopolitical environment. Meanwhile, investors favour projects that can demonstrate credible delivery pathways rather than headline capacity alone.

This environment elevates the importance of efficient, secure, and auditable infrastructure procurement. Large-scale renewable energy projects are no longer defined by a single technology or contractor, but by the coordination of multiple assets, interfaces and stakeholders across extended development timelines. As scrutiny intensifies – from regulators, financiers and the public – the robustness of infrastructure procurement processes has become a determining factor in whether projects progress smoothly or stall under pressure.

To understand how organisations are responding on the ground, Ansarada, in partnership with Infralogic, undertook a global survey of senior executives across government agencies, renewable energy developers, and transaction advisers. The research focuses exclusively on high-value renewable energy infrastructure procurements, capturing how organisations run complex tenders in real market conditions. By combining regional perspectives across the Americas, EMEA and Asia-Pacific (APAC), the survey provides a rare, ground-level view of how high-value infrastructure procurement practices are evolving in response to today's delivery pressures.

The findings show confidence in long-term fundamentals and sector growth, but also operational weaknesses that continue to undermine execution. From uneven efficiency, transparency, and digital readiness to concerns around data security and integrity, as well as regional differences in the effectiveness of risk allocation, the results point to a clear gap between the scale of renewables ambitions and the procurement processes required to deliver them. This report examines that gap – and what it will take to close it as renewable energy deployment continues to scale.

02 Methodology

In late 2025, Ansarada in partnership with Infralogic, surveyed 150 senior executives across APAC (50) EMEA (50) and the Americas (50). Respondents included 51 government agencies, 54 privately-owned renewable energy infrastructure developers and 45 transaction advisories. All responses are anonymous, and results are presented in aggregate.

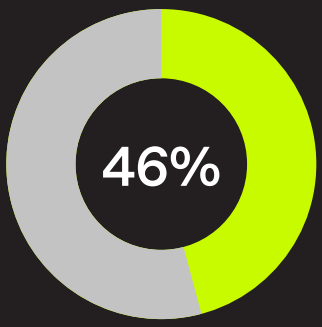
03 Key findings

Capital is flowing

Asia-Pacific leads global renewable energy investment growth expectations.

77%

of respondents expect **Solar PV** to attract some of the greatest increases in capital globally.



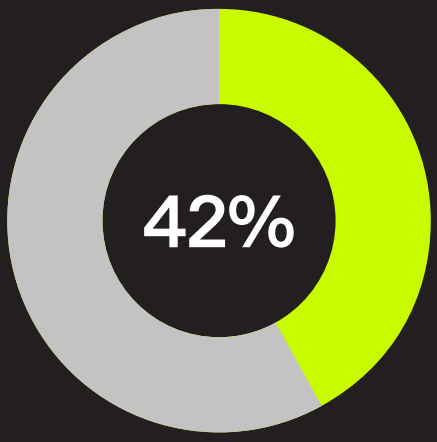
identify **APAC** as a top-two market for expansion over the next two years.

Energy demand growth is the #1 driver of new renewable projects, cited by

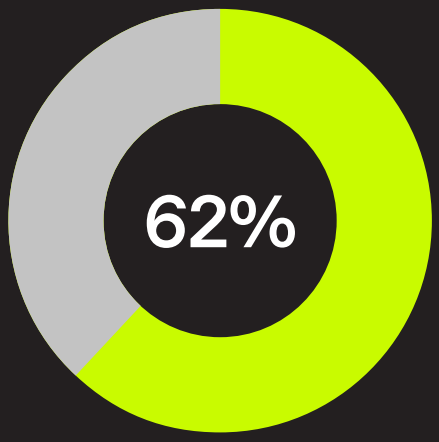
37%

globally, **nearly half in APAC.**

Battery storage has moved into the mainstream



forecast strong growth on a global basis



forecast strong investment growth in APAC.

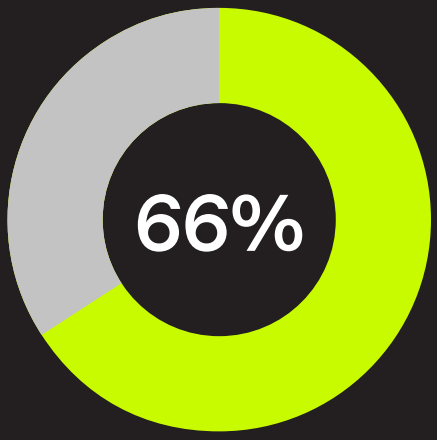
Digital transformation is underway, but fragmented

Infrastructure procurement is increasingly digital, with

72%

reporting **mostly or fully automated processes.**

Government agencies lag on digital adoption



expressing confidence that their process is largely automated.

Technology adoption is widely supported, with

86%

saying their organisation is open to adopting new technologies to improve processes.

91% use purpose-built procurement software, but system integration is **still fragmented.**

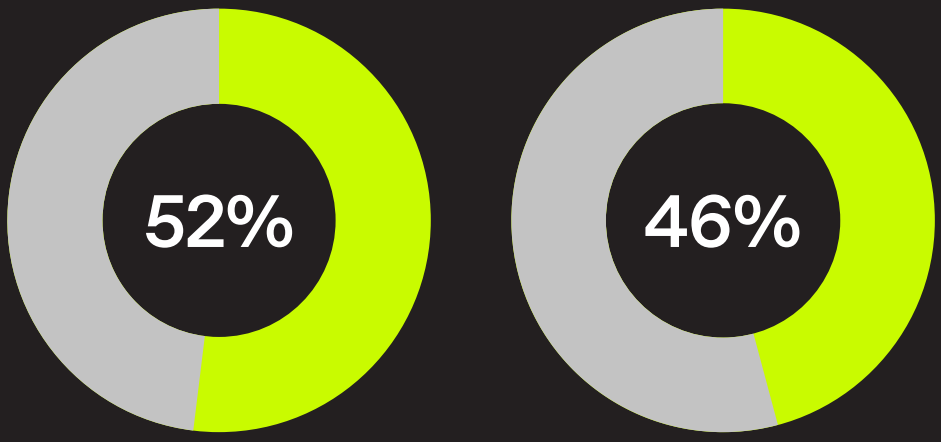
In **EMEA**, organisations are using an average of

3.8

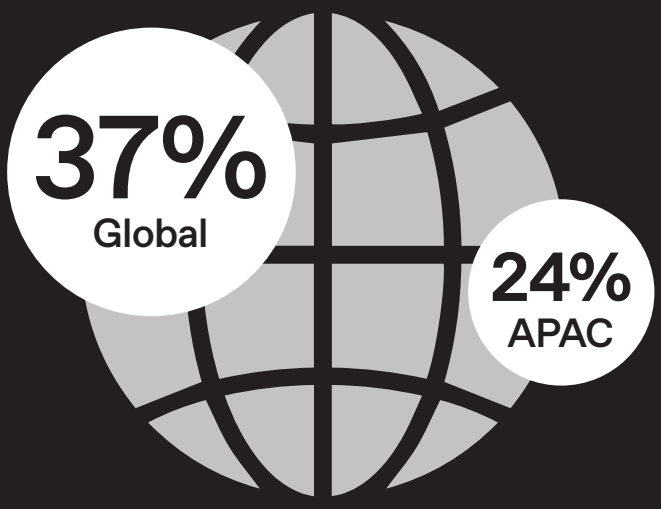
different systems.

Headwinds and delivery risk

Supply chain disruption is the most commonly cited delivery risk.



Infrastructure procurement efficiency remains inconsistent, with



describing their most recent process as very efficient.

04 Infrastructure market outlook

In the age of AI, renewable energy infrastructure has entered an exciting but more complex phase. We assess the regions, sectors, drivers and challenges that will have the most impact on the market in 2026 and beyond

Renewable energy infrastructure investment and project development has entered a new phase defined by the intersection between hyperscale AI requirements and structurally constrained power grids. Bain & Company analysis suggests that global compute requirements could reach 200 gigawatts by 2030, up 94% from 103 gigawatts this year, driven by a demand for processing power that is now outpacing Moore's Law by a factor of two. This insatiable hunger for energy has transitioned electricity from a utility input into a primary strategic bottleneck, where the speed of the digital revolution is now rate-limited by the physical lead times of transformers and transmission corridors.

It is no coincidence that, for the first time in two years, global renewable energy infrastructure investment is expanding. Total value was up by 49% year-on-year in 2025 to US$496.7 billion. This was achieved despite volumes rising by just 7%. Europe has extended its lead as the world's largest market, with US$202.7 billion invested across 1,035 transactions, representing respective year-on-year changes of 82% and 4%.

Recent policy developments have reinforced the region's dominant position. In December 2025, the European Commission introduced its European Grids Package – a sweeping initiative aimed at accelerating transmission build-out, modernising ageing infrastructure and streamlining cross-border planning. The package includes proposals to simplify permitting for both grid and renewable projects and to prioritise reinforcement of congested corridors, directly addressing one of the main barriers to large-scale deployment.

Alongside this, the Commission advanced updates to REPowerEU, sharpening the focus on energy security and confirming the bloc's intention to eliminate reliance on Russian fossil fuels by 2027, a target that continues to channel investment toward domestic wind, solar and storage capacity.

Total value was up by 49% YoY in 2025 to US$496.7 billion.

APAC accelerates

However, the region was not alone in seeing greater capital deployment. Both Asia and Africa recorded meaningful increases in investment value. Asia, the world's third-highest value market after Europe and North America, saw US$68.6 billion invested for a 17% year-on-year gain and even experienced a volume uplift of 31% to 316. These were the highest annual transaction value and volume figures on record for APAC.

In China, authorities signalled another year of rapid expansion by initially outlining plans to add more than 200 GW of new renewable capacity in 2025. However, actual performance has dramatically outpaced these early projections. According to 2025 year-end data from the National Energy Administration (NEA), the country added 310 GW of new renewable capacity in the first nine months of 2025 alone – a 47.7% year-on-year increase.

The full-year 2025 projection has since been upgraded to approximately 400 GW of new capacity. At the same time, regulators have strengthened renewable power consumption requirements for energy-intensive industries and continued to expand the use of Green Electricity Certificates to support demand for clean generation.

India has also refined its policy framework, with the Ministry of Power introducing a national policy to promote pumped-storage projects and, for the first time, confirming viability-gap funding for initial offshore wind capacity. Japan, meanwhile, has taken a significant step by amending its marine legislation to allow offshore wind development within its Exclusive Economic Zone, opening new areas for future projects and improving the prospects for bankable large-scale schemes after earlier rounds stalled.

Asia saw US$68.6 billion invested for a 17% YoY gain and experience a volume uplift of 31%.

Subsector shifts

Offshore wind is witnessing a 290% increase in value.

Subsector activity shows some sharp divergences over the past 12 months. Most notably, while solar PV is still the clear leader by a long distance and will retain that position for the foreseeable future, investment value increased by just 2%, a relatively small uplift compared with other subsectors. It coincides with offshore wind witnessing a recent boom in value, increasing by 290% to US$ 89.8 billion. This comes despite a drop-off in volume – with the number of deals falling by 11%, from 90 to 80 year-on-year.

A defining transaction was the US$16.7 billion sale of a 10 GW offshore wind portfolio developed by Acciona Energía across Italy and Chile. This megadeal, which saw Mexico Infrastructure Partners acquire the sprawling development pipeline, represents the largest single transaction across all renewable asset classes in 2025. The portfolio consists primarily of floating offshore wind projects in the Mediterranean and southern Chile, marking a significant strategic pivot for Acciona as it rotates capital toward its North American utility-scale onshore assets.

Another headline transaction in the offshore wind sector was the July 2025 financial close of the 1.4 GW East Anglia Three project off the UK's east coast. In a landmark co-investment, Masdar and Iberdrola finalised a €5.2 billion (US$6.1 billion) joint venture, supported by a £3.6 billion (US$4.85 billion) project financing package – one of the largest debt facilities ever secured in the UK renewables market. Backed by a syndicate of 24 international lenders and oversubscribed by 40%, the deal underscores the high level of institutional confidence in top-tier offshore assets. East Anglia Three's robust profile, combining massive scale with long-term revenue certainty via CPI-linked Contracts for Difference (CfDs) and a corporate Power Purchase Agreement (PPA) with Amazon, serves as a primary benchmark for the segment's ability to attract sustainable capital at scale.

Portfolio deals beyond wind have also contributed to this year's elevated investment value. In Australia, French-based independent power producer Neoen agreed to divest a substantial Victorian portfolio to global alternative asset manager HMC Capital for US$10 billion. The portfolio includes both operating and near-term projects, representing a strategic rebalancing of Neoen's footprint while providing HMC with a diversified mix of renewable capacity and storage assets. Such portfolio transactions have become a focal point for capital looking to achieve scale rapidly.

At a corporate level, the take-private of Innergex Renewable Energy by CDPQ for US$7 billion was one of the larger platform deals of the year. The transaction brings together nearly 3.7 GW of hydroelectric, wind, solar and storage capacity across multiple regions under a single ownership structure, illustrating how institutional investors are using broader portfolio acquisitions to capture both long-term upside and diversification.

The three Ps

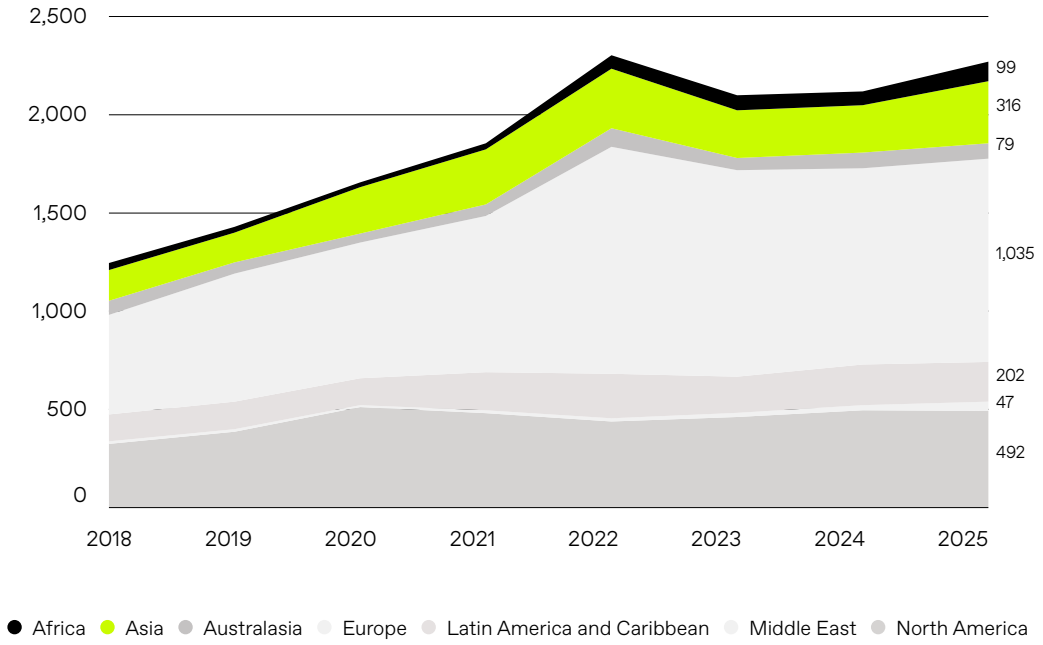
The escalating capital requirements for grid-integrated capacity have revitalised the Public-Private Partnership (PPP) model as a primary mechanism for bridging the infrastructure funding gap. With global grid investment failing to keep pace with generation, the sector is pivoting toward shared-risk models that decouple the pipes from the power. By shifting construction and interconnection risks to the private sector, these structures allow governments to bypass balance sheet constraints while providing the certainty required to attract institutional capital.

A global landmark in this category is the US$8.4 billion NEOM Green Hydrogen Project, which reached a significant 80% construction milestone in 2025. As a joint venture between ACWA Power, Air Products and NEOM, the project was funded with a US$6.1 billion non-recourse project financing package, the largest of its kind, to build an entirely self-contained 4 GW transmission grid alongside its wind and solar assets. This integrated PPP model ensures that grid capacity limits do not impede the production of high-density green fuels.

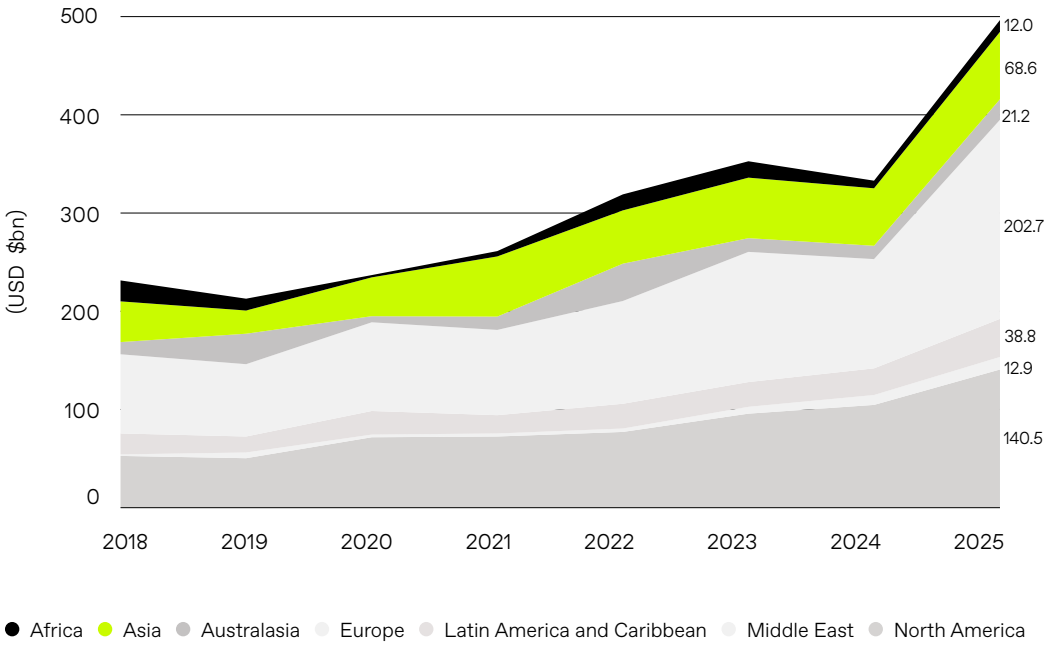
Similarly, the Central-West Orana Renewable Energy Zone (REZ), which is expected to bring in US$20 billion (AUS$30 billion) in investment by 2030, reached financial close in April 2025. It is the first electricity transmission PPP in Australia. By granting a 35-year concession to the ACEREZ consortium – comprising Acciona, Cobra and Endeavour Energy – the project provides a plug-and-play 4.5 GW corridor. This structure allows hyperscalers and renewable developers to plug into a pre-validated network, effectively shifting the risk of infrastructure lead times from private developers to the PPP entity and ensuring the high-density connectivity required for the next decade of compute-heavy growth.

The strategic mandate to build out renewables is rising in urgency. The challenge of maintaining decarbonisation targets while servicing a 200 GW global compute load that is rapidly coming online is a natural filter for capital, favouring projects that offer immediate grid connectivity and long-term revenue certainty. Above all, though, the sector is moving past the simple pursuit of headline energy capacity toward the delivery of the high-density, integrated power infrastructure required to sustain the next decade of compute-heavy, carbon-neutral growth.

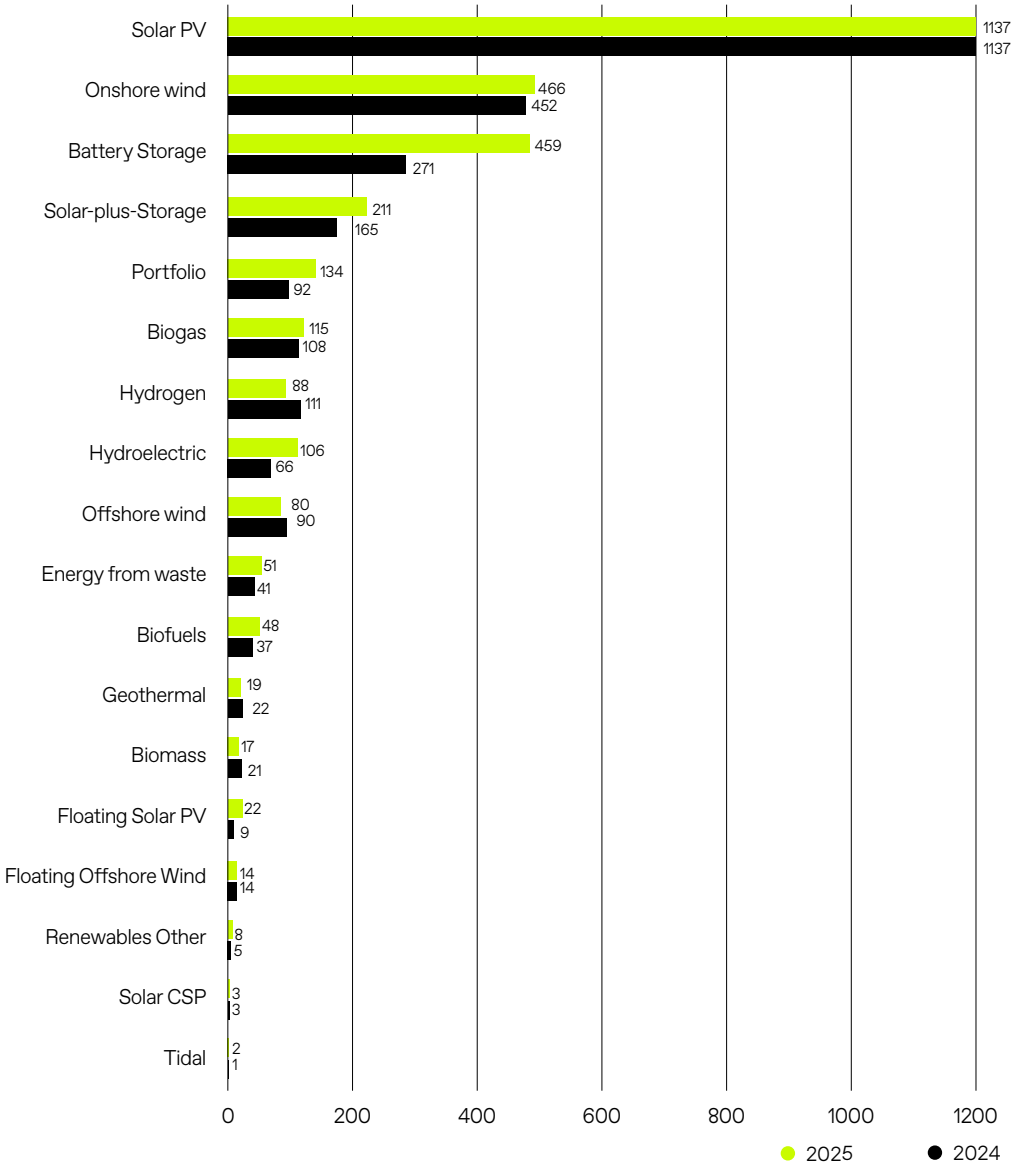
Number of renewables infrastructure transactions by region



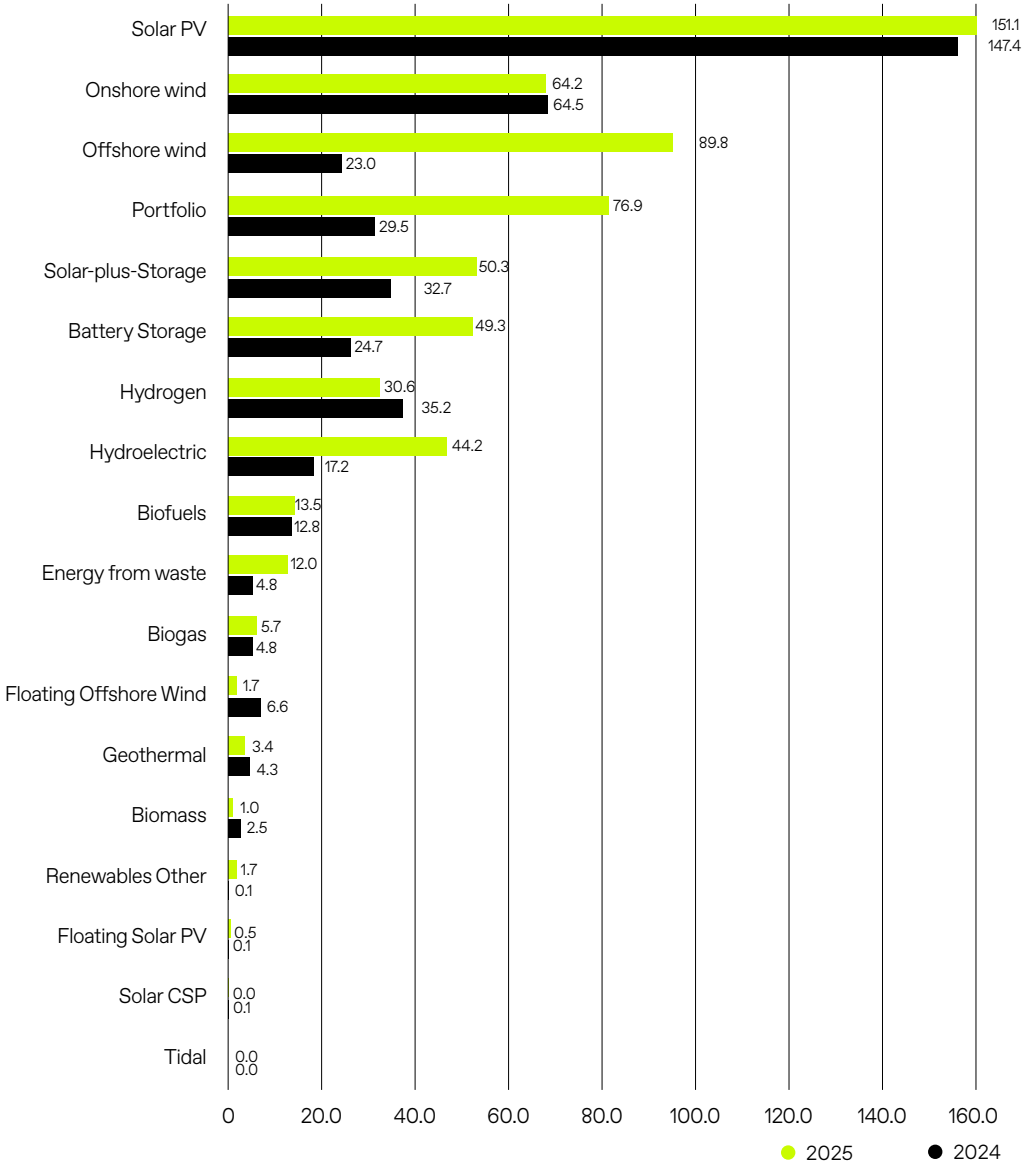
Total value of renewables infrastructure transactions by region (USD $bn)



Number of renewables and renewable-related infrastructure transactions by subsector, 2024 vs 2025 to date



Total value of renewables and renewables-related infrastructure transactions by subsector, 2024 vs 2025 to date (USD $bn)



Top 10 renewable energy and renewables-related infrastructure transactions in 2025, excluding Public-Private Partnerships

Transaction name	Region	Geography	Type	Sub-sector	MW	Current status	Current status date	Transaction size USD(b)
Acciona Italy and Chile 10GW Offshore Wind Portfolio Stake Sale (2025)	Europe	Chile, Italy	M&A	Offshore wind	10,000	Preferred Proponent	17 May 2025	16.7
Horizonte de Verano Green Hydrogen	Latin America and Caribbean	Peru	Greenfield	Hydrogen		Preferred Proponent	10 Mar 2025	11.2
Neoen Sale (2025)	Europe	Canada, France	M&A	Portfolio		Financial Close	20 Mar 2025	10.0
East Anglia Three 1.4GW Offshore Wind Farm	Europe	United Kingdom	Greenfield	Offshore wind	1,400	Financial Close	24 Jul 2025	7.0
Innergex Renewable Energy Sale (2025)	North America	Canada	Take Private	Portfolio		Financial Close	21 Jul 2025	7.0
Hornsea Three 2.9GW Offshore Wind Farm (Pre-Construction) (50% Stake) Sale (2025)	Europe	United Kingdom	M&A	Offshore wind	2,900	Financial Close	30 Dec 2025	6.7
Abu Dhabi 5.2GW Solar and 19GWh BESS Project	Middle East	United Arab Emirates	Greenfield	Solar-plus-Storage	5,200	Preferred Proponent	14 Jan 2025	6.0
Allete Sale (2025)	North America	USA	Take Private	Portfolio		Financial Close	15 Dec 2025	5.8
Inch Cape 1.08GW Offshore Wind Farm	Europe	United Kingdom	Greenfield	Offshore wind	1,080	Financial Close	27 Jan 2025	5.0
Casa dos Ventos Pecem 1.2GW Hydrogen Project	Latin America and Caribbean	Brazil	Greenfield	Hydrogen	1,200	Preferred Proponent	20 Mar 2025	5.0
Pakil 1.4GW Pumped Storage Hydroelectric Project	Asia	Philippines	Greenfield	Hydroelectric	1,400	Preferred Proponent	19 Mar 2025	5.0

NOTE: All data shown above was extracted from Infralogic on 07/01/2026 and displays infrastructure transactions that have reached either the preferred proponent or financial close stages. Infrastructure transaction types include greenfield, M&A, privatisation, nationalisation, public offering, take private, refinancing and additional financing.

Rethinking transmission procurement

Shane Devlin, Director at MBB, on why transmission is the real bottleneck in Australia's energy transition, how governments are rethinking risk and where procurement processes most often fail.

From your perspective, what are the main procurement issues shaping renewable energy and transmission projects in Australia right now?

Most of my work has been in the transmission sector – largely government investment and procurement, where the investment isn't happening on its own. That's a very different situation to the green energy developers, particularly solar and battery, who are operating in a different market.

In the transmission space, the big topic is Incentivised Target Cost (ITC) contracting. It's being used as a way for the public sector side to accept more risk, rather than trying to push it all into a lump-sum contract with the delivery market. The model is well established in places like the UK, but in Australia some jurisdictions are still getting to grips with what it means to have a target cost, what risks they're taking to their board and how 'pain-share/gain-share' is going to work in practice.

How established is the ITC model across Australia and how are different states approaching it?

In Victoria, it's well embedded. Treasury has implemented it as a standard form contract, largely because of experience in the transport sector. There's a view that transmission and other linear infrastructure share a lot of the same risk profiles, so that approach has been moved across and standardised.

In Queensland, people are using the language of ITC, but may not have signed contracts in that form yet. They're directionally on the journey, but the circumstances are different and some of the risks that make the model a clear fit in Victoria aren't as clear here.

How urgent is transmission right now, given the pace of generation investment?

In my mind it's the biggest constraint. If you talk to battery developers, they have tailwinds in a lot of other ways – capital costs are coming down, and battery prices are still falling faster than

many projections. Land can be simpler because they're often buying freehold.

But they can't get projects financed if they can't secure connections, and those connections are underpinned by transmission upgrades. So, if you ask a battery developer what help they need, it often comes back to transmission.

Renewable Energy Zones (REZs) are intended to coordinate generation planning with future transmission investment. Is that how they're working in practice?

What I've seen is that planners are allocating REZs geographically based on the highest-value use of land, and those zones can shift once they're established.

The intent is that they sit at the end of a transmission network – states aren't establishing REZs in places that aren't planned to be connected – but some of them aren't connected yet. It's fine to say a zone will be there and try to bring in private investment, but if the transmission project that connects it is delayed, or perceived as high risk, it becomes difficult to fund the projects you want to build inside the zone. Where REZs can help is coordination. Giving someone control over a defined region can support better matching of solar, wind and batteries, and that matters for system stability.

In your experience, where do procurement processes for transmission projects most often go wrong?

A common issue is clients not being clear early on about what they want – even basics like whether they're procuring an asset or procuring a service. Some organisations are only familiar with one approach, so they don't properly explore the full range of options at the strategy stage.

Another issue is how prescriptive clients can be when they go to market. A very hands-on client might issue a detailed technical specification where a functional specification would be better. That can rule out good bidders, or it can fail a process because nobody can comply with what's been put to market. Sometimes clients only reach that understanding after they've run a few failed processes and get direct feedback from industry.

How common is it that procurement processes fail outright?

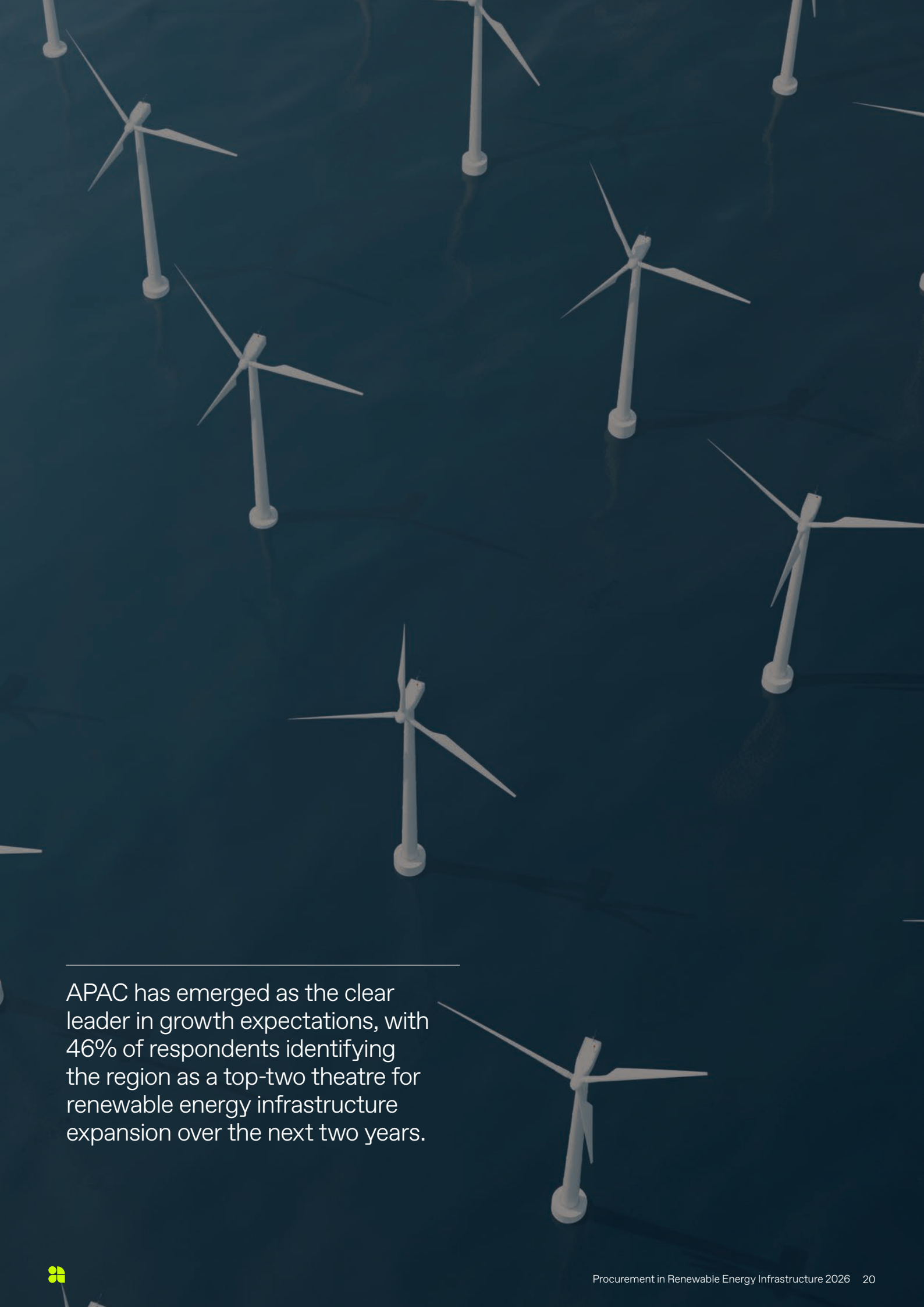
It happens enough that we focus closely on it. A lot of this links back to government organisations that just haven't done major projects for a long time.

If you're an organisations that's been spending tens or hundreds of millions a year on maintenance for the last decade and you're now ramping up to billions per year, your existing suppliers and procedures may not be proven at that scale.

The public sector appears to be less satisfied with the degree of efficiency and automation in their renewables procurement processes. Is that consistent with what you see?

Broadly, yes. Public sector organisations are working under very well-documented processes – and that doesn't necessarily mean good processes. People are often not authorised to step outside those frameworks.

Those procedures are usually tied back to state policies and then overlayed with internal frameworks and procedures. So, if you want to materially change how procurement is done – including standardisation and the use of better, dedicated systems – it's not just a project decision. Effectively, a new framework has to be developed that has to go through its own governance journey.



APAC has emerged as the clear leader in growth expectations, with 46% of respondents identifying the region as a top-two theatre for renewable energy infrastructure expansion over the next two years.

Regional preferences

Europe and North America have historically served as the primary conduits for capital deployment, but that longstanding hierarchy is now being tested by a combination of industrial necessity and sovereign alignment.

APAC has emerged as the clear leader in growth expectations, with 46% of respondents identifying the region as one of the primary theatres for renewable energy infrastructure expansion over the next two years. This is followed by 42% who maintain a bullish outlook on the European market, despite, or perhaps because of, its maturing asset base.

Investors are increasingly pricing in an asset creation premium in Japan and Australia, where the scarcity of permitted, grid-ready capacity allows for superior margins. A definitive example is the Australian Capacity Investment Scheme (CIS), which in late 2025 awarded contracts to 16 battery projects totalling 4.13 GW. Major global entities, including BlackRock's Akaysha Energy and Stonepeak-backed AMPYR, are utilising government-backed capacity tenders as a structural floor to de-risk gigawatt-scale storage portfolios.

In certain APAC markets, bankability is now being underwritten by the region's dominant tech sector rather than state subsidies. In December 2025, TotalEnergies and Google finalised a landmark 21-year PPA for 1 TWh of solar power in Malaysia. As AI-driven compute demand outpaces traditional grid expansion, the ability to deliver 24/7 green power has transitioned from a sustainability goal to a critical industrial utility.

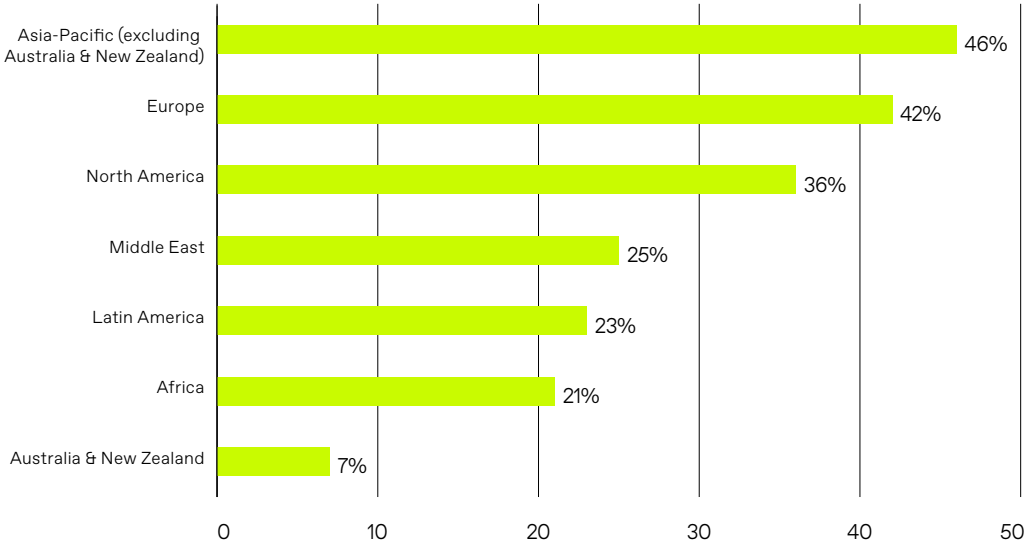
Europe remains the world's largest renewable energy infrastructure market by absolute value, but the strategic focus has pivoted toward repowering the industrial base. As the continent's early-generation assets reach end-of-life, a massive secondary market for high-efficiency upgrades is emerging. RWE's repowering of the Muel wind farm in Spain, commissioned in December 2025, serves as a blueprint: the project replaced 27 ageing turbines with just three modern, high-output units, more than doubling production while leveraging existing grid access. Under the Clean Industrial Deal, agreed in 2024 to align decarbonisation with industrial competitiveness and energy security, there is expected to be further vertical integration of renewables with heavy industry to secure Europe's energy sovereignty.

For North America, respondents are pricing in a significant policy risk premium following the July 2025 legislative pivot from the Inflation Reduction Act (IRA) to the One Big Beautiful Bill Act (OBBBA). While core tax credits were largely preserved, the OBBBA introduced a rigorous July 2026 construction-start deadline for wind and solar projects to remain eligible for full 45Y/48E credits. This has created a bifurcated market: a high-velocity safe-harbouring phase for current projects, contrasted against a clouded outlook for 2027 and beyond. Consequently, the US has entered a holding pattern, with capital retreating to late-stage, de-risked assets. Despite these headwinds, 36% of respondents still expect North America to deliver meaningful growth, reflecting the sheer scale of its underlying power demand.

Our findings also highlight the "vision-led" surge playing out in the Middle East, cited as a top-two growth market by 25% of respondents. This sentiment is predicated on the region's unique ability to mobilise sovereign-backed megaprojects that bypass the permitting friction typical of Western markets.

The NEOM Green Hydrogen Project remains the global benchmark. By integrating 4 GW of solar and wind directly into an US$8.4 billion electrolyser facility, Saudi Arabia is demonstrating its capacity to sidestep grid-congestion issues entirely, delivering large-scale renewables and transmission in parallel. For global investors, the region represents a credible alternative to more congested and policy-constrained markets with its rapid supply chain mobilisation and bankable pipelines.

Which regions will see the greatest increase in major renewable energy infrastructure projects activity in the next two years? (Select top two)



Europe remains the world's largest renewable energy infrastructure market by absolute value, but the strategic focus has pivoted toward repowering the industrial base.

Procurement in the Middle East renewables market

Kenny Linn, former capital project services leader at PwC Middle East and independent consultant, on the rapid maturation of the Middle East renewables market and the critical shift from traditional procurement to integrated, multi-asset frameworks.

Which types of renewables infrastructure will dominate the upcoming boom in the Middle East, and what are the unique procurement challenges in the region?

Three technologies will clearly dominate: large-scale solar PV, onshore wind, and renewable-enabled hydrogen and storage-linked projects.

Solar remains the backbone due to scale, cost competitiveness, and the region's natural advantage.

However, what's changing is the integration strategy — projects are no longer being procured as standalone generation assets, but as part of broader energy systems.

The major procurement challenge is no longer price alone; it's coordination and integration. Delivering utility-scale solar alongside storage, grid reinforcement, and offtake infrastructure requires procurement strategies that go well beyond

traditional EPC contracting. Clients must align engineering, construction, grid access, and long-term performance obligations from the outset.

Is the Middle East moving so quickly because of the sovereign capital available, or are there other factors at play?

Sovereign capital is certainly an enabler — but it's not the primary driver.

What's really distinctive is the political and regulatory alignment across the Gulf. Energy transition is being driven top-down, embedded into national visions such as Saudi Vision 2030 and long-term energy strategies across the region.

There is also a strong economic imperative. Renewable energy is no longer framed purely as a climate response; it's a tool for economic diversification, energy security, and industrial development. That alignment allows governments to move quickly, reduce investor friction, and commit at scale.

How are supply-chain bottlenecks and localisation requirements being addressed in the Gulf states?

Localisation policies are now a central feature of procurement — and they're becoming more sophisticated.

We're seeing targets in the range of 30–40% local content, supported by industrial strategies that encourage local manufacturing, assembly, and services. This includes solar modules, mounting systems, electrical components, and increasingly O&M capabilities.

Rather than treating localisation as a constraint, developers are starting to see it as a risk-mitigation strategy — reducing exposure to global supply chain volatility while building long-term resilience and local capability.

Given the scale and complexity of the project pipeline, how has the nature of procurement itself changed in the region?

Procurement has shifted from being a transactional function to a strategic delivery discipline.

Clients are moving away from rigid, lowest-price models toward more collaborative procurement approaches, including early contractor involvement, hybrid EPC structures, and multi-package strategies. The aim is to manage risk proactively rather than transfer it blindly.

There's also a much stronger emphasis on bankability. Procurement decisions are now deeply intertwined with financing requirements, risk allocation, and long-term operational performance — particularly for mega-projects and portfolio developments.

How do internal process pressures — such as project monitoring and reporting — affect project bankability?

They have a significant impact.

Lenders and investors are increasingly focused on data quality, transparency, and governance maturity. Weak project controls, inconsistent reporting, or opaque decision-making directly undermine confidence.

Well-structured monitoring, digital reporting, and disciplined governance frameworks are no longer "nice to have" — they are fundamental to securing competitive financing and maintaining stakeholder trust.

How is the shift toward multi-asset projects, such as solar-plus-storage, changing procurement?

It's driving a real evolution.

Instead of procuring generation, storage, and grid connections separately, clients are moving toward integrated contracting strategies that recognise the interdependencies between assets.

This requires deeper technical capability within procurement teams, clearer interface management, and contracts that incentivise system-level performance, not just asset delivery. The complexity increases — but so does long-term value.

Are frontier technologies such as AI or digital twins being used yet to solve procurement challenges?

They are starting to be — selectively.

Digital twins, advanced analytics, and AI-driven tools are increasingly used for performance forecasting, risk modelling, and scenario analysis, particularly on large portfolios. While still maturing, these tools are already improving transparency, predictability, and decision-making.

The key is integration — technology only delivers value when embedded into governance, procurement, and delivery processes, not layered on top as an afterthought.

What development do you believe will have the most transformative market impact over the next few years?

The standardisation and scaling of grid-connected, hybrid renewable systems.

As markets mature, we'll see greater convergence around repeatable procurement models, standardised risk allocation, and portfolio-based delivery. This will unlock speed, reduce cost of capital, and allow governments to deploy renewables at unprecedented scale — while maintaining control over risk and performance.

Sector preferences

Solar PV remains the primary target for capital deployment, with 80% of respondents expecting to see significant investment growth in their respective regions. In 2025, overall global solar investment reached a record US$450 billion according to the IEA. However, the strategic nature of this spending is undergoing a fundamental transition.

The underlying unit economics of solar ensure it remains the default resource for high-demand environments, but the goal is no longer just deploying the lowest-cost megawatt.

In mature markets like Europe, where solar installations saw a marginal 0.7% contraction last year to 65.1 GW according to SolarPower Europe, capital is migrating from the decentralised rooftop segment toward utility-scale hybrid projects. Investors are prioritising "solar-plus-storage" configurations designed specifically to mitigate the increasing frequency of negative pricing hours in high-penetration grids like Spain and Germany. This shift indicates that solar is no longer viewed as a standalone generation asset, but as part of a more integrated, dispatchable system.

Charged up

The most pronounced regional divergence in capital allocation is found in battery storage. While 42% of respondents globally expect strong growth in large-scale storage, expectations are significantly higher within APAC markets, where 62% of regional respondents anticipate strong growth, compared with 34% in EMEA.

In the APAC region, a "stability ceiling" has fundamentally recast the investment thesis. With variable renewables now exceeding 50% of peak load in several key sub-grids, new generation is effectively only as valuable as the storage that supports it. Global battery storage investment surpassed US$65 billion in 2025, catalysed in part by a record-breaking run of financial commitments in Australia.

The Australian Capacity Investment Scheme (CIS) serves as a global benchmark for this transition. In September 2025, the scheme awarded contracts to 16 battery projects totalling 4.13 GW, providing a structural floor for returns. For institutional investors, capital is gravitating toward these "firming" assets, including long-duration storage and pumped hydro, that provide the frequency control and voltage stability traditional solar lacks. By treating storage as a regulated, utility-like asset class, investors are securing predictable yields that contrast sharply with the volatility of merchant solar.

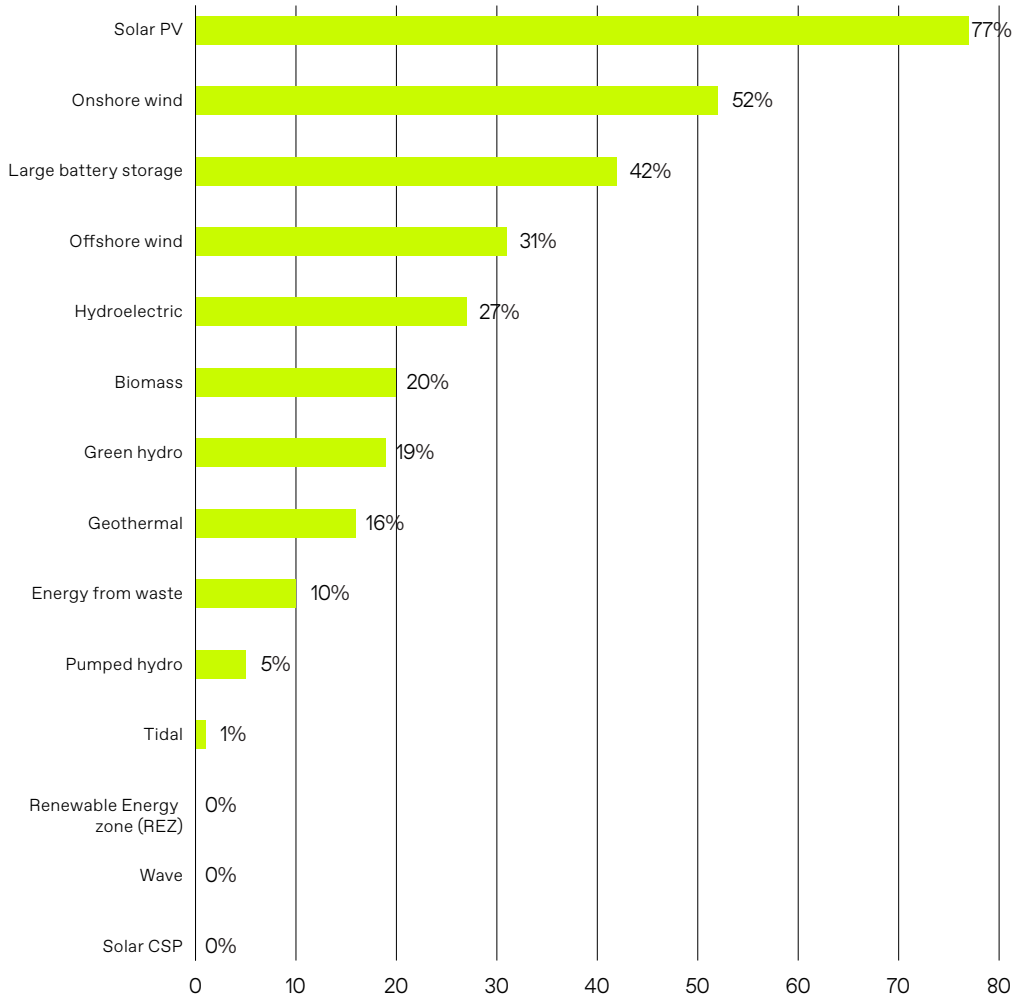
Blowing hot

For EMEA-based investors, offshore wind has solidified its position as the critical secondary growth sector to solar, cited by 44% of respondents. Capital is concentrated in the North and Baltic Seas, where projects provide the massive single-ticket scale, often exceeding US$5 billion per transaction, that allows institutional funds to deploy capital with lower administrative friction than distributed solar.

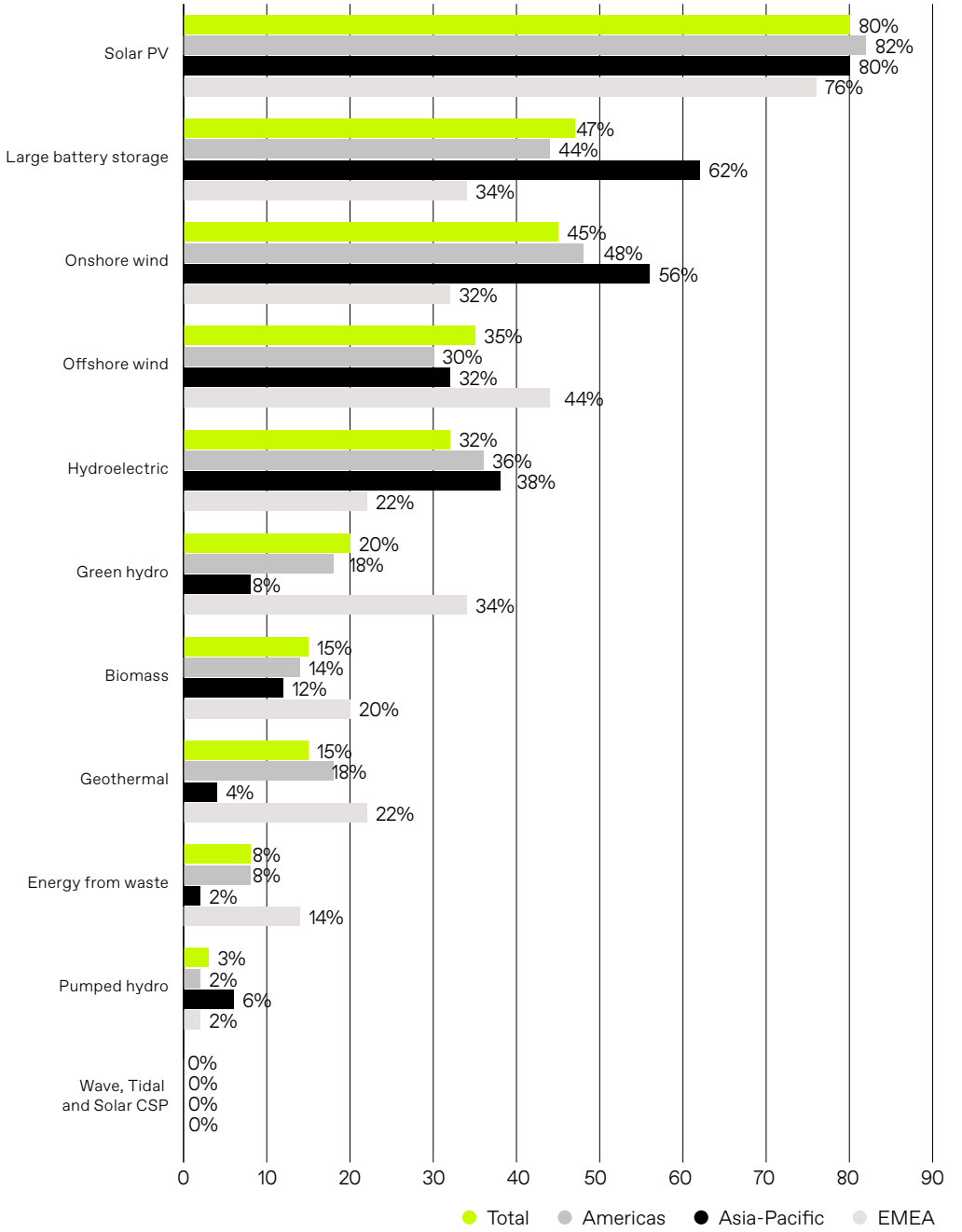
The region's trajectory is dominated by the industrialisation of the North Sea, headlined by the 3.6 GW Dogger Bank Wind Farm. In late 2025, Dogger Bank A entered its final commissioning phase, while the completion of all 277 foundations across all three phases marked the largest offshore construction milestone in history. This is being bolstered by Ørsted's 2.9 GW Hornsea 3, which began its primary foundation rollout in August 2025.

While the North Sea remains the primary engine, the exportability of this model is being proven in the Baltics. The €2 billion financial close of Poland's 390 MW BC-Wind project in December 2025, alongside the 1.44 GW Bałtyk sister farms, confirms that institutional appetite for offshore wind now extends into emerging European markets. Under the Clean Industrial Deal, these projects are being vertically integrated into Net-Zero Acceleration Valleys – hubs where industrial decarbonisation is physically tethered to offshore energy landing points.

Which of the following types of renewable energy and renewable energy-related infrastructure projects will see the greatest increase in value invested over the next two years globally? (Select top three)



Within the region in which you are based, which of the following types of renewable energy and renewable energy-related infrastructure projects will see the greatest increase in value invested over the next two years? (Select top three)



Over US$500 billion in capital expenditure by AI hyperscalers is projected for 2026.

Project drivers

Global renewable energy strategy is being redefined by the immense, energy-intensive requirements of AI compute demand. With over US$500 billion in capital expenditure by AI hyperscalers projected for 2026, according to Wall Street analysts, the computational tasks performed by these data centres require a level of concentrated power that traditional centres simply were not built to handle. In the US alone, data centre energy consumption is projected to hit 409 TWh by 2030, representing approximately 9% of total national demand. Inevitably, this shift is placing unprecedented emphasis on the ability to deliver gigawatt-scale power.

Across our survey, 37% of respondents view surging energy demand as a critical driver for new renewable energy infrastructure development. This sentiment is most acute in APAC, where nearly half of respondents (46%) identify it as a top-two driver.

While the US remains the largest single market by total operational capacity and maintains a 3.4x growth projection in its long-term pipeline, APAC is the global leader in growth velocity and the development of next-generation AI-ready sites. The region is projected to more than double its total capacity by 2030, a rate of expansion that is expected to see APAC surpass the US as the world's largest co-location market before the end of the decade.

This growth is being driven by markets such as Malaysia and Australia, which face fewer of the legacy grid bottlenecks found in North America or Europe. In late 2025, New South Wales approved a US$3.1 billion CDC Data Centre campus at Marsden Park, the largest project of its kind in the Southern Hemisphere. With a sizeable 504 MW capacity, the site is designed to operate with nearly 99% renewable energy by 2030, serving as a blueprint for other APAC hubs.

Conversely, EMEA respondents are more attuned to the technological frontier of the energy transition itself. More than a third of EMEA-based investors (38%) highlight technological advances as a top-two driver of major renewable energy infrastructure project development – nearly double the rate of their counterparts in the Americas (20%) and well ahead of those in the APAC region on 26%.

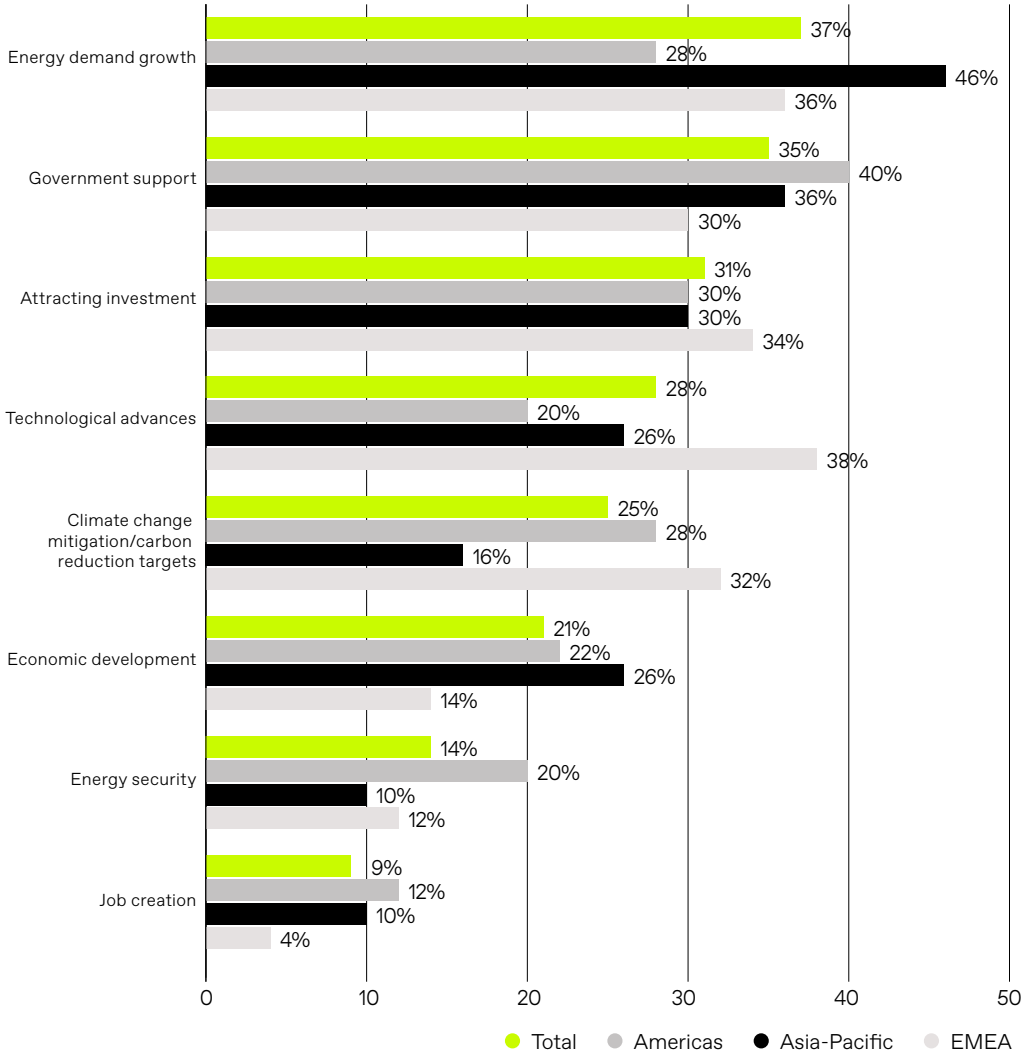
For these investors, technology is the primary tool to overcome Europe's physical land scarcity and grid congestion. This is directly supported by the European Grids Package, which designates eight critical Energy Highways for fast-tracked permitting. Crucially, the package introduces a "tacit approval" rule: if a regulator fails to act on a permit within a six-month deadline for storage or a two-year deadline for grid links, the permit is automatically considered approved.

37%

of respondents view surging energy demand as a critical driver for new renewable energy infrastructure development.

This regulatory shift allows developers to immediately integrate the latest hardware, such as the 28.7 GW of Long-Duration Energy Storage projects advanced by the UK's Ofgem in late 2025. These technologies help deliver firm 24/7 renewable output for industrial off-takers. In EMEA, capital is gravitating toward these integrated energy zones where fast-tracked regulatory frameworks and advanced storage are built alongside generation to ensure green energy can reach its home even in the world's most congested markets.

What are the most important drivers of major renewable energy infrastructure projects in your region? (Select two)



Project challenges

While the investment outlook is supported by solid long-term fundamentals, several risks continue to temper the pace of capital deployment. Rather than temporary hurdles, these persistent operational realities are having to be priced into investment models.

Supply chain disruption is the most commonly highlighted impediment to delivery, cited by 43% of all respondents – this rises to 52% of Americas-based respondents and 46% in APAC. Module prices have hit record lows, but the rest of the system has surged in cost. Critical grid components, such as transformers and high-voltage cables, now face lead times of up to three years.

"Rather than cancelling projects outright, what we're seeing is delays or slight rescoping," said Craig McMahon, Business Development Director in ANZ at Ansarada. "Timelines are becoming more considered because rushing projects to market under current supply chain conditions just creates delay after delay."

For developers, this creates a significant timing risk, where a single sub-supplier delay can derail multi-billion-dollar commissioning schedules. Peter Jones, Managing Director of MBB, noted that the supply chain challenge in Australia is compounded by its vast, sparse geography and the inherent logistics challenges that poses.

"We are seeing a 36-month lag between placing an order and the kit actually arriving in the country. Even then, you get it into a port and you may be driving a 100-metre turbine blade 500 kilometres or more to the installation site," he said, adding that supply chain uncertainty and delays feed back into procurement and financing risk.

The challenge is not just hardware related – the human supply chain is another critical variable. Megaprojects are competing for a scarce skilled workforce with massive government spending in sectors like healthcare, defence, and transportation. In Australia, this frequently requires expensive labour encampments and fly-in, fly-out (FIFO) models to staff projects in remote regional locations where the local workforce doesn't exist in the necessary volumes.

Money matters

In EMEA, the concern is more specifically tied to the cost of capital with macroeconomic uncertainty and high interest rates each being identified by 44% as top challenges. This reflects the sensitivity of the European market to shifting financing terms; as the higher-for-longer rate environment persists, buoyed by government bond yields that remain elevated relative to the past decade, the interest cost on project debt has put upward pressure on the Levelized Cost of Electricity (LCOE). For many investors in Europe, where renewables build-out was early and financed in the zero-interest-rate era, debt servicing now consumes a significantly larger share of project cash flow than in the past.

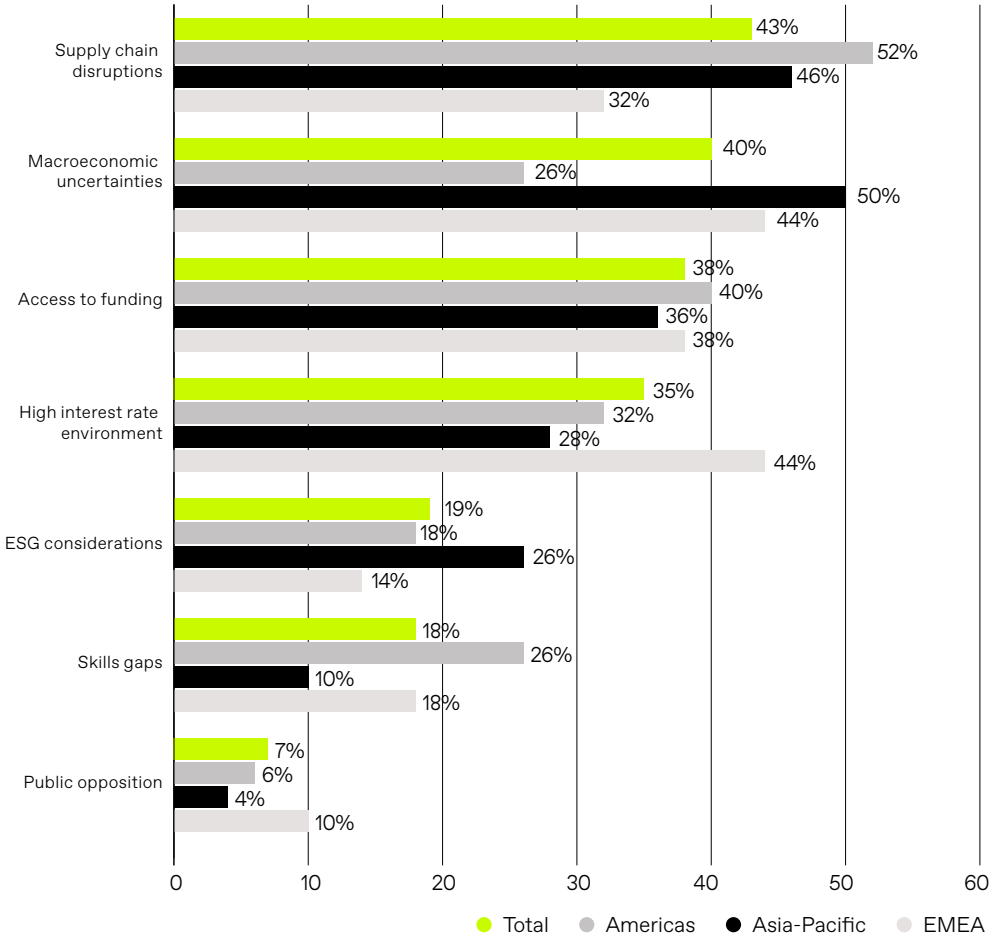
44%

of respondents each identify macroeconomic uncertainty and high interest rates as top challenges.

This financial pressure is a primary driver of the recently observed "LCOE hump", a phenomenon where historical cost declines have begun to level out and even slightly increase. According to Lazard's June 2025 LCOE+ analysis, while utility-scale renewables have seen massive long-term cost reductions, the current environment has led to a notable reversal in this trend. Specifically, utility-scale solar PV has experienced a 4% increase in average unsubsidised LCOE over the previous two years. Onshore wind has seen an even more significant squeeze, with a 23% increase over the same period, reflecting severe supply chain constraints alongside financing pressures.

These increases are the direct result of today's higher borrowing costs, as Lazard's benchmark assumes a capital structure of 60% debt at an 8% interest rate. For capital-intensive assets, this financing inflation has begun to neutralise the benefits of record-low hardware prices. Consequently, the gap between new-build renewable projects and the marginal cost of running existing conventional generation has widened, fundamentally altering the investment calculus for developers, for whom the cost of capital is as critical as the cost of the technology itself.

What are the biggest challenges in delivering major renewable energy infrastructure projects in your region? (Select two)



05 Tech drivers

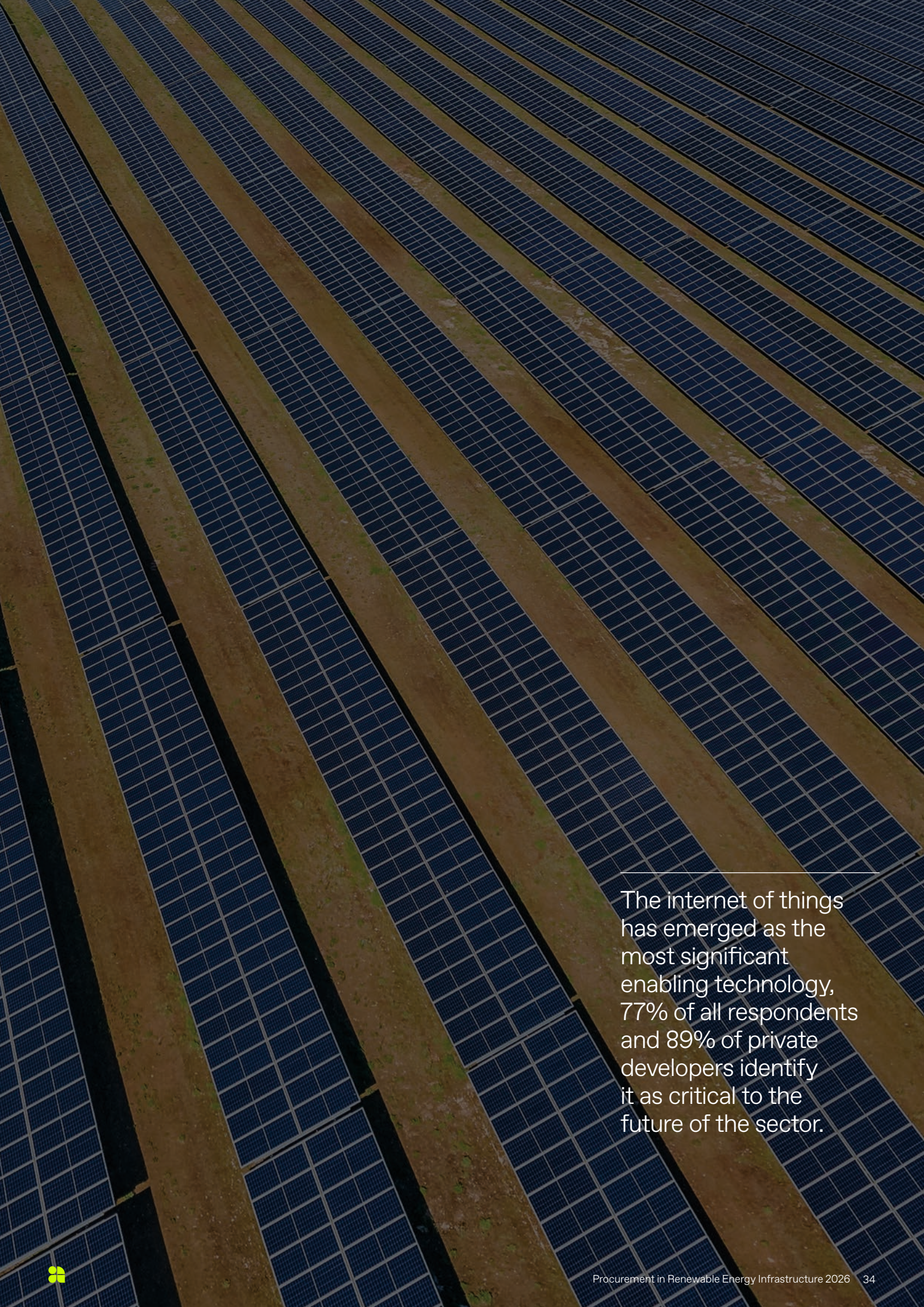
Renewable energy systems are becoming more than just generation projects and closer to data-intensive industrial assets. Performance, availability and risk are increasingly optimised with the use of continuous data flows rather than static engineering assumptions made at financial close. This shift is elevating the role of digital technologies that can monitor assets in real time, predict failures and verify performance across the full lifecycle.

The internet of things (IoT) has emerged as the most significant enabling technology, 77% of all respondents and an overwhelming 89% of private developers identify it as critical to the future of the sector. Following IoT, machine learning (ML) and big data analytics are highlighted by 66% and 63% of respondents, respectively.

These frontier technologies are increasingly solving the long-standing problem of lifecycle uncertainty. For example, in the wind sector, companies like GE Renewable Energy leverage embedded sensor networks to monitor turbine performance, including temperature and vibration, in real time across entire fleets. Similarly, Ørsted is actively advancing data-driven digital systems to enhance predictive maintenance and condition monitoring in its wind operations, using sensor data and AI to anticipate component failures and optimise reliability.

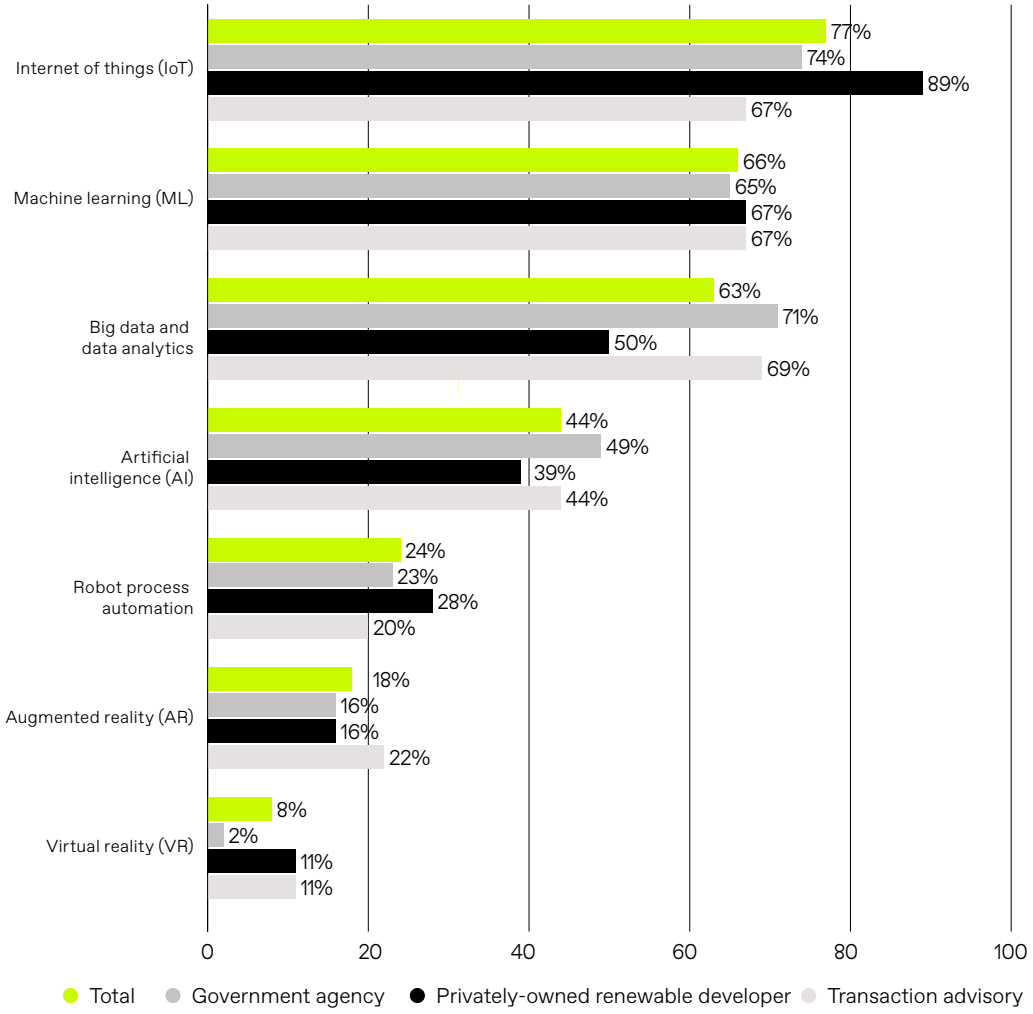
These tools are now beginning to influence the front-end of the project lifecycle. For example, in a greenfield tender, a client can leverage the digital twin data from an existing, comparable asset to validate a bidder's claims.

Rather than relying on a manufacturer's stated assumptions, the client can use this real-world data to hold bidders to evidence-based performance guarantees. This shift reduces the lifecycle operational expenditure uncertainty that traditionally leads to conservative pricing and higher borrowing rates. By providing independent verification, these technologies increase lender confidence and allow for more competitive, data-verified bidding.



The internet of things has emerged as the most significant enabling technology, 77% of all respondents and 89% of private developers identify it as critical to the future of the sector.

Which types of technology have the greatest potential to transform the provision and maintenance of renewable energy infrastructure? (Select top three)



06 Procurement process: The state of play

Successful procurement in the renewable energy infrastructure space is a delicate balancing act between efficiency, risk, transparency and competition. We examine how executives are weighing up the competing factors and the improvements that they need to make

The transition to a renewable energy-powered economy is more than just a financial or technological challenge. As projects grow in complexity and geographical scale – all while involving the careful coordination of generation, transmission, and storage – traditional, siloed methods of procurement are proving insufficient.

Operationally, a complete rethink of how renewable energy infrastructure is brought to market is required. Modern procurement efficiency is now the critical path to project viability, serving as the bridge between ambitious policy goals and the physical reality of delivering green power to the grid. Without a rigorous, digitalised and integrated backbone, the energy transition risks being derailed by administrative fragmentation and friction.

All respondents state that transparency and auditability are either “essential” or “important” to their procurement process. This sentiment is strongest in EMEA, where 90% of respondents described these factors as at least “very important” and 42% called them “essential”.

Efficiency

Efficiency is one of the bedrocks of the infrastructure procurement process and, indeed, just over a third of respondents globally (37%) noted that their most recent renewables procurement process was "very efficient". However, this leaves a significant 63% majority operating with processes that are, at best, only partially optimised. This efficiency gap is most pronounced in APAC, where a mere 24% of respondents view their procurement as very efficient, compared with 46% in EMEA and 40% in the Americas.

Split by organisation type, it is transaction advisors, who often utilise specialised platforms, that are the most positive, with 44% calling their most recent process very efficient. This confidence drops to just 29% among government agency respondents. This discrepancy aligns with the systemic drag inherent in disjointed digital systems common in the public sector, which are often the weakest link in the procurement chain.

"When operating for a public service agency, it's important to always be mindful of records management back into that agency's records management system. It can be difficult to interface from their records into a dedicated platform and vice versa," said Jones, adding that a unified system is the only way to move beyond "artificial accuracy" and ensure a project can withstand scrutiny.

37%

of respondents globally noted that their most recent renewables procurement process was "very efficient".

Transparency

For investors and developers, a transparent procurement process is a must for mitigating integrity risk and securing the social licence required to operate. As projects grow in scale and public visibility, the ability to demonstrate a fair, competitive and traceable selection process is essential to ward off the systemic costs of mismanagement. Without a robust and auditable record, infrastructure procurement processes can result in drawn-out investigations and costly legal and financial liabilities.

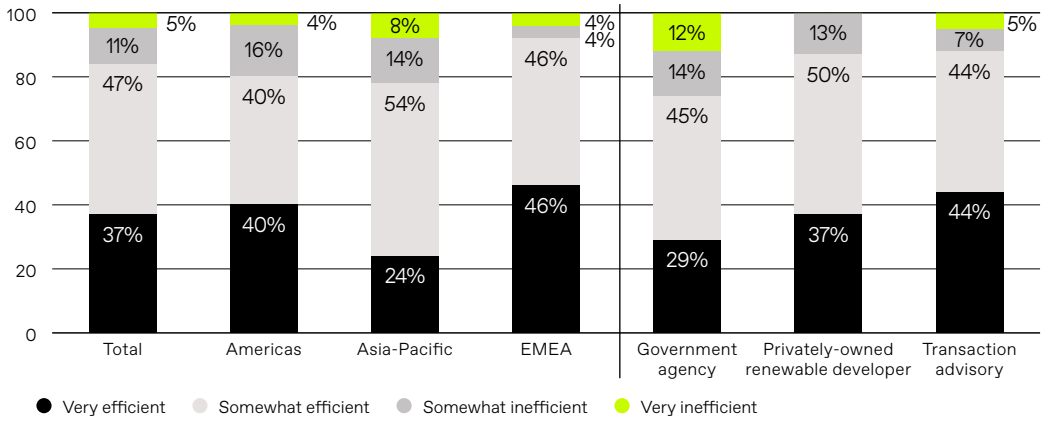
All respondents state that transparency and auditability are either "essential" or "important" to their procurement process. This sentiment is strongest in EMEA, where 90% of respondents described these factors as at least "very important" and 42% called them "essential". This contrasts with APAC, where only 16% of respondents view transparency as an essential requirement.

The data also reveals a concerning transparency lag between those inside the deal and the external parties who hold the power to challenge it. While 95% of respondents believe their most recent process was transparent to internal stakeholders, this confidence drops significantly when facing outward. Globally, 43% of respondents admit their process is either "not transparent at all" or only "somewhat transparent" to external stakeholders, compared with just 32% who say the same for internal parties.

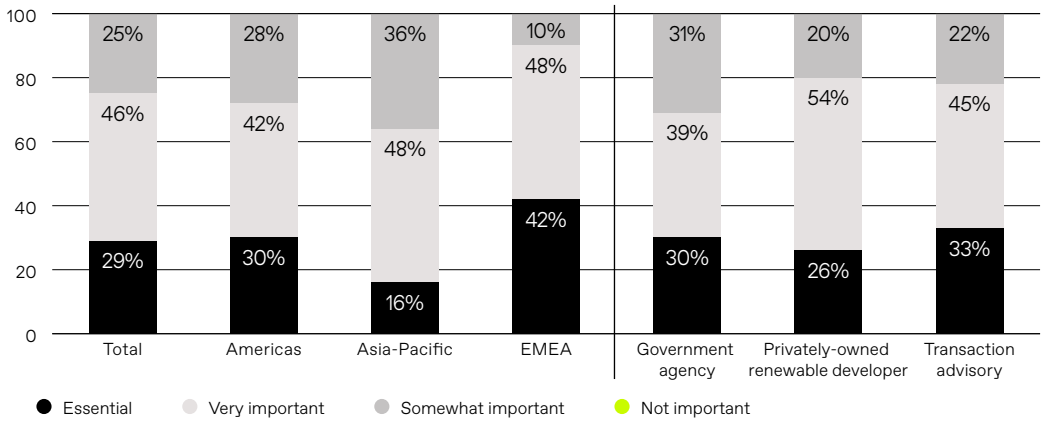
This lack of external clarity can be catastrophic. Audrey Bailly, Business Development Director in ANZ at Ansarada, points out that a digital platform allows firms and public bodies to respond to challenges in a matter of hours rather than weeks. "With just one click you can kill a litigation within a couple of hours when using a platform that enables those kinds of reports. It shouldn't take two weeks with seven people digging through emails and folders, trying to find out every response to a specific question."

Dedicated procurement platforms allow stakeholders to "prepare for the worst rather than hoping for the best", she added. As the sector continues to mature, the ability to provide a single, auditable source of truth is becoming the primary differentiator for successful project delivery, ensuring deals are defensible across their entire lifecycle.

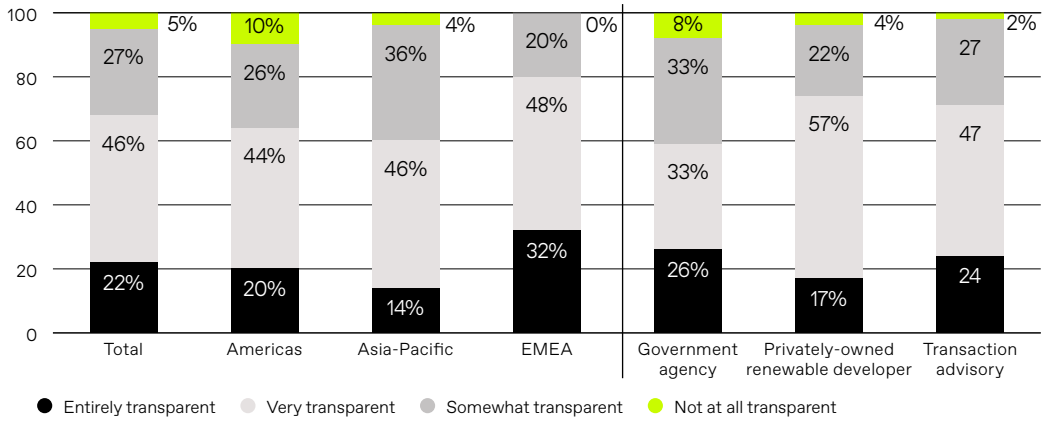
How would you assess the efficiency of the procurement process?



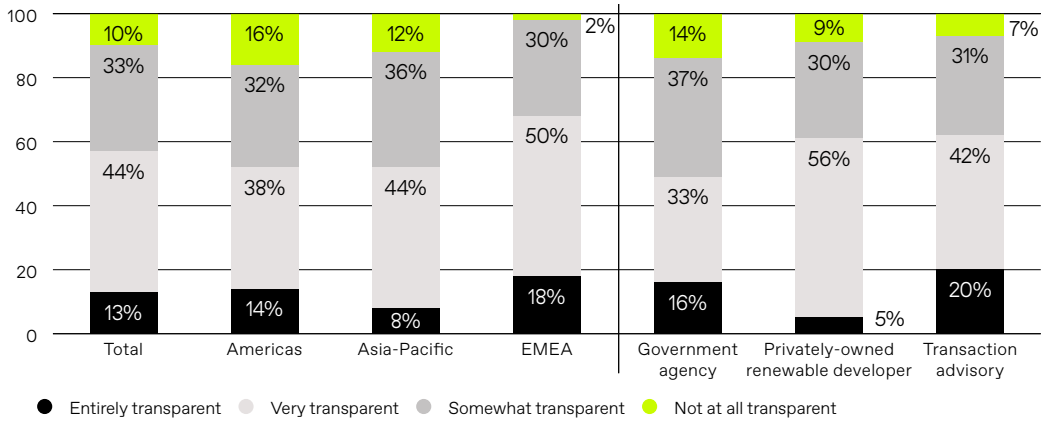
How important are transparency and auditability in your procurement process?



How transparent is your procurement process to internal stakeholders?



How transparent is your procurement process to external stakeholders?



Risk allocation

The traditional philosophy of risk allocation, where liability is transferred to the party best able to manage it, is being stress-tested by a higher-for-longer interest rate environment and acute supply chain volatility. The fixed-price Engineering, Procurement and Construction (EPC) contract has long been the standard for utility-scale renewables, but its rigidity is becoming a liability in this environment.

As the "LCOE hump" persists, the industry is seeing a tactical shift: construction is still delivered via EPC, but the financial and systemic risk is being reallocated through more sophisticated PPAs and government-backed coordination.

Our survey findings reflect a sharp regional divide in how effectively these risks are being managed. Nearly half of EMEA respondents (48%) believe risks were allocated "very effectively" in their most recent tender, compared with just 22% in Asia-Pacific. In the APAC region, half of all respondents (50%) described the allocation as only "somewhat effective", suggesting the market is currently trying to use traditional turnkey contracts in an era of cost spikes.

This split is increasingly defined by the adoption of bankable delivery structures, designed to make complex, multi-technology projects financeable at scale. Kenny Linn, Former Capital Project Services Leader at PwC Middle East and Independent Consultant, noted that the market is moving toward integrated models such as Public-Private Partnerships (PPPs) and Independent Power Projects (IPPs) to manage the sheer density of new technology. In these structures, the primary hurdle is interface risk – the accountability for how disparate, multi-asset systems are brought together.

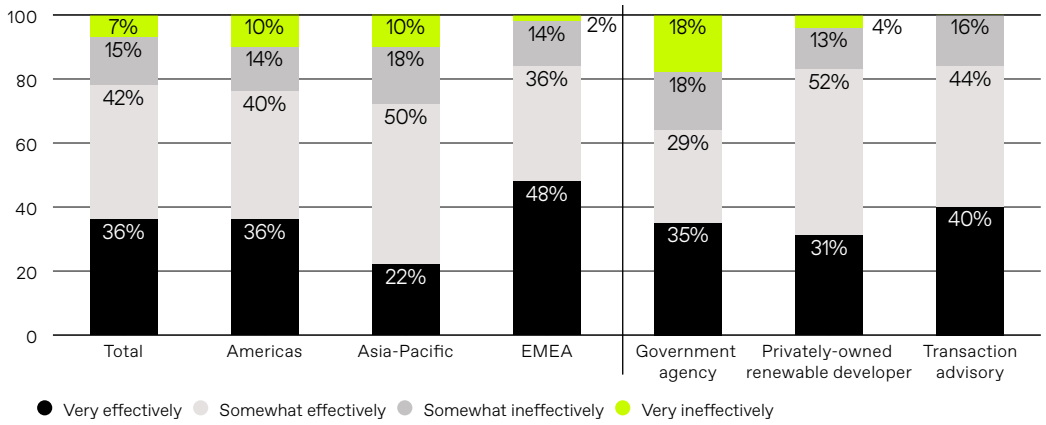
"When you move to a renewables project where you've got solar, wind, storage and a whole range of different components, how those interfaces are controlled and how the documentation and process flow is managed becomes paramount," Linn explained. For financiers, clarity around this transfer is the difference between a project that is viable and one that is non-fundable.

In Australia, the strategic response to these interface and timing risks is the Renewable Energy Zone (REZ) model. While REZs are fundamentally a physical coordination of assets, their true value lies in how they reallocate risk. By capping zone capacity and centralising transmission, the government moves the curtailment risk from the financier's ledger to the state's planning office. This shifts the procurement focus from a high-pressure, single-point EPC contract to a more collaborative framework where the state backstops the infrastructure, meaning developers can focus on delivery knowing the risk of stranded capacity is materially reduced.

McMahon highlighted how this coordinated approach reshapes risk earlier in the project lifecycle. "There are many REZ projects that have kicked off and are in the pipeline across New South Wales, Victoria and South Australia, and they coordinate generation, transmission and storage in a more structured way," he said. "That helps from a procurement perspective because it reduces risk for investors and proponents."

Crucially, this coordination allows procurement timelines to be aligned with network approvals and financing milestones, rather than forcing projects to market before connection pathways are clear. In an environment of volatile costs and constrained supply chains, that sequencing helps to avoid the delays and rework that have undermined large-scale renewables delivery in the past.

How effectively were risks allocated between stakeholders?



The new world of Australian procurement

Peter Jones, Managing Director at MBB, on the changing dynamics of fixed-price contracting in the Australian market, the "fragile" social licence for linear infrastructure and why private capital is moving into the early development phase.

The industry is seeing significant cost escalation. Is the traditional fixed-price contract still viable for major renewable projects in Australia?

Fixed-price, DNC (Design and Construct)-style arrangements are extremely challenging for projects delivered at scale. The last decade of Australian infrastructure was characterised by cost blowouts risking both companies' future and public confidence. It's now unlikely any board will sign up for a fixed-price contract on a major project because the risk is too high. It has also become unrealistic for construction businesses, given the margins they'd require to cover the volatility in resourcing.

Little wonder we have shifted toward collaborative forms, like Alliances or ITC (Incentivised Target Cost) models, where "pain share and gain share" replace partisan liability. These are predicated on open book transparency and symmetrical information, so when change occurs, solutions come from a common understanding rather than both parties resorting to a litigation.

Why is this collaborative model particularly necessary for renewables and transmission specifically?

Because the scope for uncertainty is genuine. If you are doing 10km of tunnel in a city, you can do your geotech and hydrology investigations with a higher level of confidence. But if you are building 600km of transmission line, the level of investigation required to genuinely quantify and transfer risk is a much harder proposition.

It's this uncertainty which is tightening the gap between the procuring agency and private delivery partners, simply because the inherent risks are just too difficult to quantify in isolation.

In these large-scale public sector projects, how significant is the risk of data fragmentation across different digital systems?

Fragmentation is a real risk. The engineering documentation must stay in the engineering domain for version control. The record management systems must be maintained by public agencies for freedom of information requests. Cabinet-confidential documents cannot be shared outside agency systems. It's a question of managing risk, and having a clear, cohesive and current view of the project.

Using a platform like Ansarada allows project professionals to adopt a "document of record" approach. It allows us to know, whatever is happening downstream in other systems, we have a single, verified contractual baseline. If there is a change, it goes through a gated process, and the new document of record is controlled from that point forward.

How does that digital "document of record" approach aid in the transaction advisory process?

This approach is essential for managing the relationship with the market, particularly regarding probity - the strict regulation of how government engages with the private sector. The "document of record" system gives full auditability. Project leads can track exactly who is viewing documents, and how often, and then manage the full download protocols.

When a project is audited, we have a full and accurate record of the information history, version control and access. The "document of record" approach also allows us to transition from the procurement phase directly into the contract form and the contract database. Of all the systems we've used, it's really the only one we rely on to manage the market interface.

There is a growing concern about a "disconnection" between generation projects being ready before the transmission network is ready. How critical is this gap?

This is one of the key conversations across the country right now. Transmission is generally lagging behind the required program. Given the availability of transmission drives the appetite for generation, investor confidence in generation projects is justifiably impacted.

One of the major issues we're seeing is the challenge of securing social licence to build. These projects are invasive – you can't bury or hide 600km of power lines. You have to put them somewhere – which often requires greenfield construction. Which requires social buy-in.

Landholder opposition is a major risk. How can the industry secure this social licence to operate?

It is an incredibly emotional space. Unlike legacy generation projects such as power stations, which are often major local employers, transmission lines and wind farms do not provide long-term local employment, at volume, after construction. It is hard for a community to balance the idea of the project as a public good when it isn't necessarily great for them personally. If one landowner in the middle of a 600km route says no, your project can suddenly double in size requiring 1,200km of transmission to go around them. If you fall back on compulsory acquisition powers, you've instantly damaged the social licence.

It's a delicate balance. We are on the precipice of an energy issue – when the lights start going out, attitudes might change, but it might take that to drive the point home.

We are seeing a shift in how capital is deployed. Is private capital entering projects earlier than it used to?

Yes, and that is a genuine change from five or six years ago. Because government-backed capital is more constrained, we are seeing the use of private capital in the development phase for field investigations, surveys, and geotech.

This brings the Early Contractor Involvement phase forward, as you're creating an integrated team where funding is coming from both parties. This should generate more efficient projects because the people who are actually going to build the asset are involved in making choices about capital deployment from the start.

Beyond capital, what are the primary logistical hurdles for the Australian market?

Geography and scale. We have a clear energy transition strategy at state level, with associated funding at project level, but Australia is huge. This makes projects geographically challenging for international suppliers and internal logistics. Port facilities need to be upgraded to handle the volume of turbines needed and the ports may not be ideally located. So, once the turbines land, you might be driving them 500km to the installation site. It's not ideal, but it's cheaper than building a new port. Or a new rail line.

The workforce is another consideration. While 70% of people live in capital cities, these turbines are usually in remote regions. This means many projects requires labour encampments and FIFO (Fly-In Fly-Out) workers, which adds logistical complexity and cost.

While none of these issues are insurmountable, they require smart thinking from the start – and effective management throughout.

Competition

Competitive bidding is the main driver of value in large-scale infrastructure projects. By enforcing transparency and merit-based selection, competitive tenders enable more reliable price discovery. This is even more critical amid today's volatile material and labour costs.

Beyond simple cost control, high bidding intensity catalyses technological innovation as developers seek efficiency edges to differentiate their proposals, while also providing the market-tested bankability required by institutional financiers. In a sector as capital-intensive as renewable energy, a robustly contested procurement process serves as the ultimate stress test for a project's long-term viability.

There are notable regional divergences in perceived bidding intensity, however, with the Americas emerging as the most contested market for renewables globally. A large majority (68%) of Americas-based respondents described their most recent significant transaction as subject to "high" or "very high" competition in the bidding stage – a figure that outstrips the 52% in EMEA and 40% in Asia-Pacific who share this view.

This intensity is fundamentally driven by the ongoing safe-harbour squeeze, a bottleneck created by the legislative transition from the IRA to the OBBBA. Under the OBBBA, wind and solar projects must meet a strict "beginning of construction" deadline by July 4, 2026 to qualify for the full suite of federal tax credits. This has triggered a dash for the finish line, with developers engaging in fierce bidding wars for the limited supply of projects that have already cleared the multi-year permitting and grid-connection hurdles required to meet this window.

Projects that fail to meet the July 2026 deadline are forced into a compressed completion window ending in December 2027, a shift that can slash project economics by 30% or more if additional incentives, such as domestic content or energy community adders, are lost. This means that, although capital remains abundant, shovel-ready projects are a scarce commodity.

This all-or-nothing scenario explains why competition in the Americas is nearly 30 percentage points higher than in APAC. Stricter Foreign Entity of Concern (FEOC) rules and the removal of broad safe-harbour protections have narrowed the pool of compliant supply chains and counterparties, further constraining the number of projects that can realistically meet eligibility thresholds. As a result, any asset with an approved grid connection and a clearly compliant path to construction attracts intense bidding pressure from a concentrated field of qualified buyers.

Steady state

In contrast to the deadline-driven frenzy of the Americas, EMEA (52%) represents a more mature and stable competitive landscape. Without a single, massive federal cliff like the US Safe-Harbor deadline, bidding intensity in Europe and the Middle East is driven by established CfDs and high-volume corporate PPAs. This provides a more predictable, steady-state volume of work that, while still highly competitive, lacks the same forced urgency.

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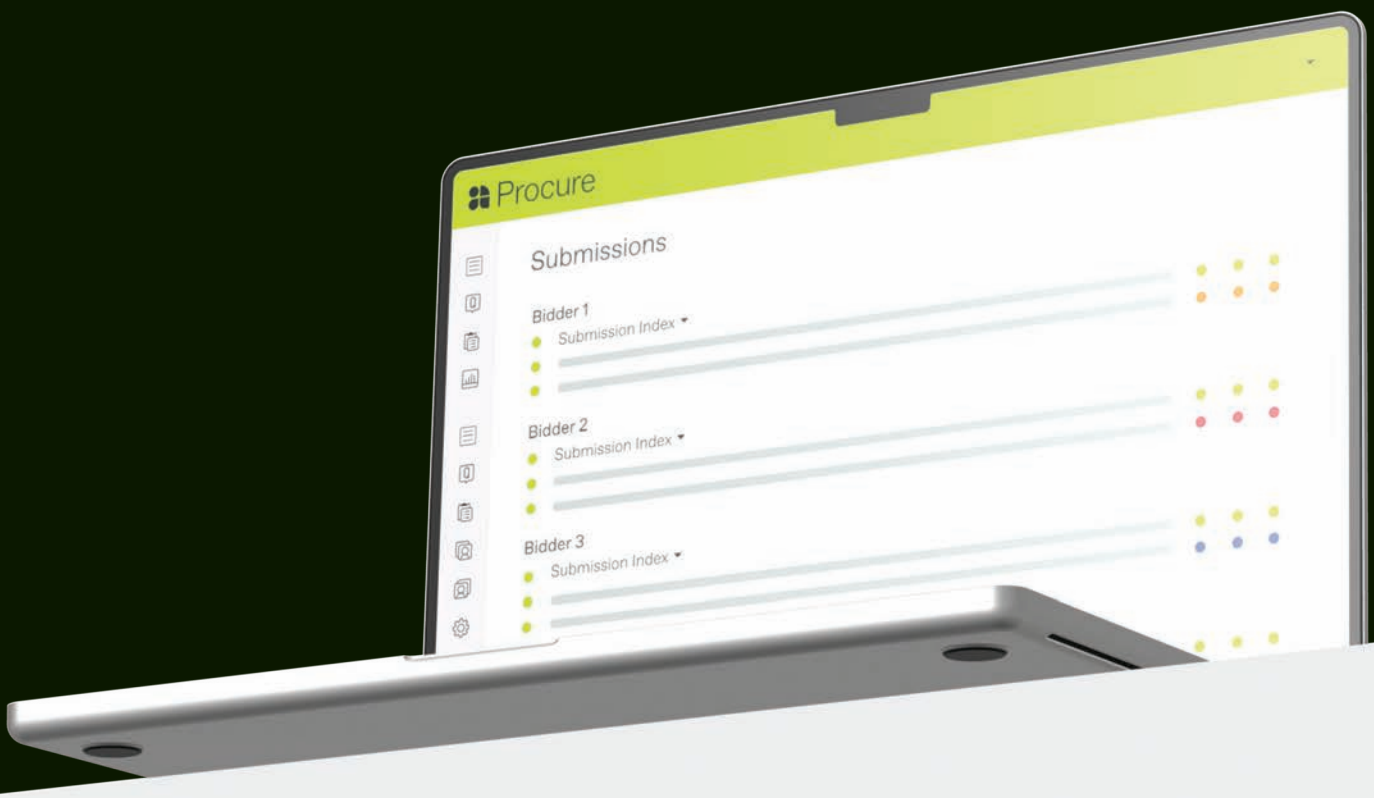


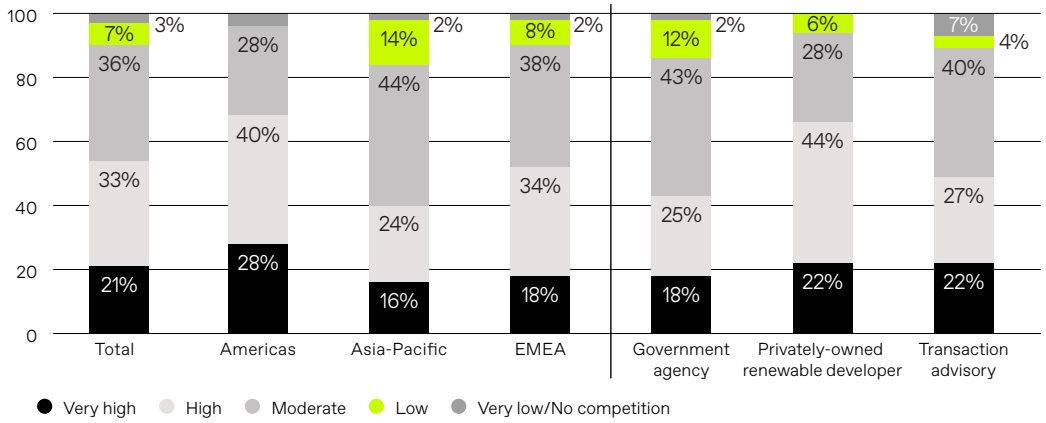
APAC (40%) stands out for lower bidding competition relative to Western markets. This reduced intensity is closely linked to persistent interface friction and grid uncertainty across parts of the region. In several key APAC jurisdictions, projects are brought to market before grid connection arrangements are fully resolved, increasing execution risk. Limited firming infrastructure and unclear transmission pathways can deter the broad field of international bidders typically seen in Europe and North America. As a result, procurement processes are often dominated by a smaller cohort of local developers or state-owned enterprises with the institutional familiarity and regional expertise required to navigate regulatory sequencing and infrastructure constraints.

Across markets, respondents noted ways to ensure bidding processes can be more competitive. The overarching view is that transparency and a level playing field is the ultimate goal and that this may require active intervention on the part of public sector buyers. "In some markets, government-backed companies can discourage private-sector participation," said the programme director at a government agency in Australia. "Striking the right balance is important to ensure all bidders are treated fairly."

This point was echoed by the deputy director of a government agency in Mexico, who said: "Most of all, fair treatment and evaluation during bids can be done to increase competition. Favouritism has been a challenge in renewables procurement and officials should intervene to ensure a fair process."

Whether navigating the legislative cliffs of the US or the grid frictions of APAC, the goal remains the same: a procurement process where the cost of entry is lower, the rules are clear and the developer best equipped to deliver wins on merit.

How would you assess the level of competition in the bidding stage?



ESG considerations

Environmental, social and governance (ESG) considerations have become core components of risk management. For many institutional investors, deep ESG integration is now a primary filter used to determine whether assets are investable or off-limits. This is just as applicable for determining an infrastructure project's long-term viability.

However, the breadth of this integration is far from universal. Instead of a global consensus, there is a clear and widening divide between regions that have codified ESG and those where it has become a focal point of political resistance.

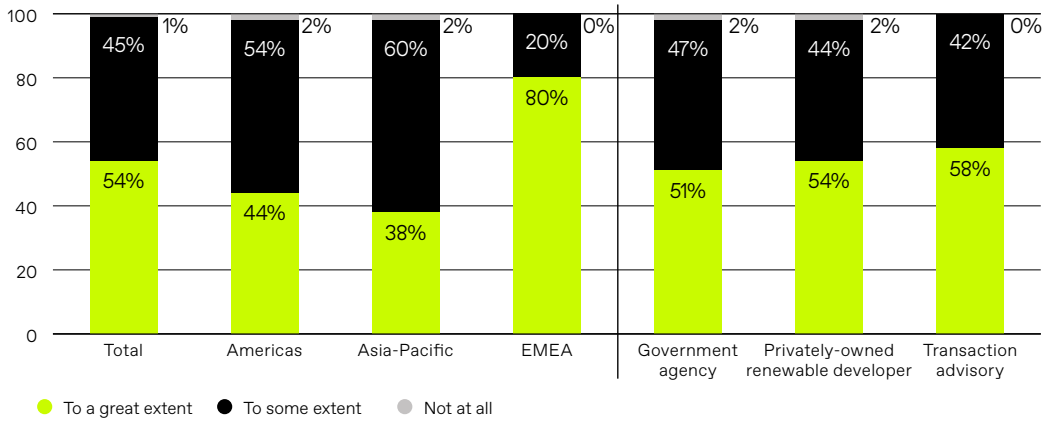
Looking back at their most recent significant renewables infrastructure transaction, four in five EMEA respondents (80%) state their procurement process integrated ESG considerations to a great extent. This compares to just 44% of Americas respondents and 38% of those in APAC who said the same, albeit a majority from these latter regions still said ESG considerations were integrated to some extent.

This regional divide can be seen in the contrast between Europe's "all-in" approach and the growing politicisation of ESG in parts of the US. EU regulations like the Corporate Sustainability Reporting Directive (CSRD) and the Corporate Sustainability Due Diligence Directive (CSDDD) have effectively mandated ESG. For a developer in Europe, failing to provide auditable data on supply chain ethics or carbon intensity may represent a barrier to tender eligibility and project financing. In much of this region, ESG is the licence to operate.

Conversely, a number of US states have enacted anti-ESG laws that restrict or, in some cases, prohibit state entities and pension funds from explicitly incorporating ESG considerations unless they are framed in financial or fiduciary terms.

While the initial wave of anti-ESG legislation has stabilised in terms of state count, enforcement has become more assertive. Florida, Texas and West Virginia, which were early adopters, have moved into an enforcement phase through measures including asset withdrawals, blacklisting of managers and even legal action against ESG-linked investment practices.

Did the procurement process integrate ESG considerations?



Developers now face a patchwork where the ESG metrics required by coastal institutional capital are the same metrics that may trigger heightened scrutiny or procurement exclusion in several inland state jurisdictions.

This has led many developers to integrate ESG rigorously within internal risk and delivery processes, while carefully moderating how prominently these considerations are presented in public-facing tender documentation, to avoid political or legal repercussions.

80%

of EMEA respondents state their procurement process integrated ESG considerations to a great extent.

Necessary improvements

The urgency with which governments are moving to meet sustainability goals and sharply rising energy demand projections in the age of AI is seeing renewables deployed at pace. But this rush inevitably gives rise to its own challenges, including co-ordinating stakeholders and ensuring projects stay on course.

Nearly half of all respondents (47%) identified project management to be one of the top three aspects of their most recent transaction in need of improvement. This finding points to a broader systemic issue: the tendency to rush complex infrastructure to market before the underlying due diligence is complete, risks are appropriately identified and comprehensive documentation is made available.

This lack of readiness has direct, tangible costs. McMahon noted that a frequent failure in the sector is bringing projects to market prematurely. Even large-scale government-backed initiatives in Australia, such as elements of the Victorian Transmission Plan, have seen scheduled projects delayed as teams seek greater certainty around costs, availability and demand before engaging the market.

To address this, there is a growing move toward more clearly staged procurement processes and more rigorous upfront diligence to secure financing confidence.

Across EMEA, infrastructure procurement oversight is seen as a significant challenge, with 50% of respondents highlighting progress monitoring and reporting as one of their top three priorities for improvement. This reflects the procedural intensity of renewable energy procurement in the region, particularly in Europe, where multi-stage tenders, formal evaluation frameworks and a high risk of bid challenge place a premium on tracking milestones, documenting decisions and maintaining visibility throughout the procurement process. Recent European initiatives such as the EU Hydrogen Bank auctions, which impose strict eligibility, reporting and audit requirements during the tender phase, illustrate the level of scrutiny now applied to procurement execution itself across parts of the EMEA market.

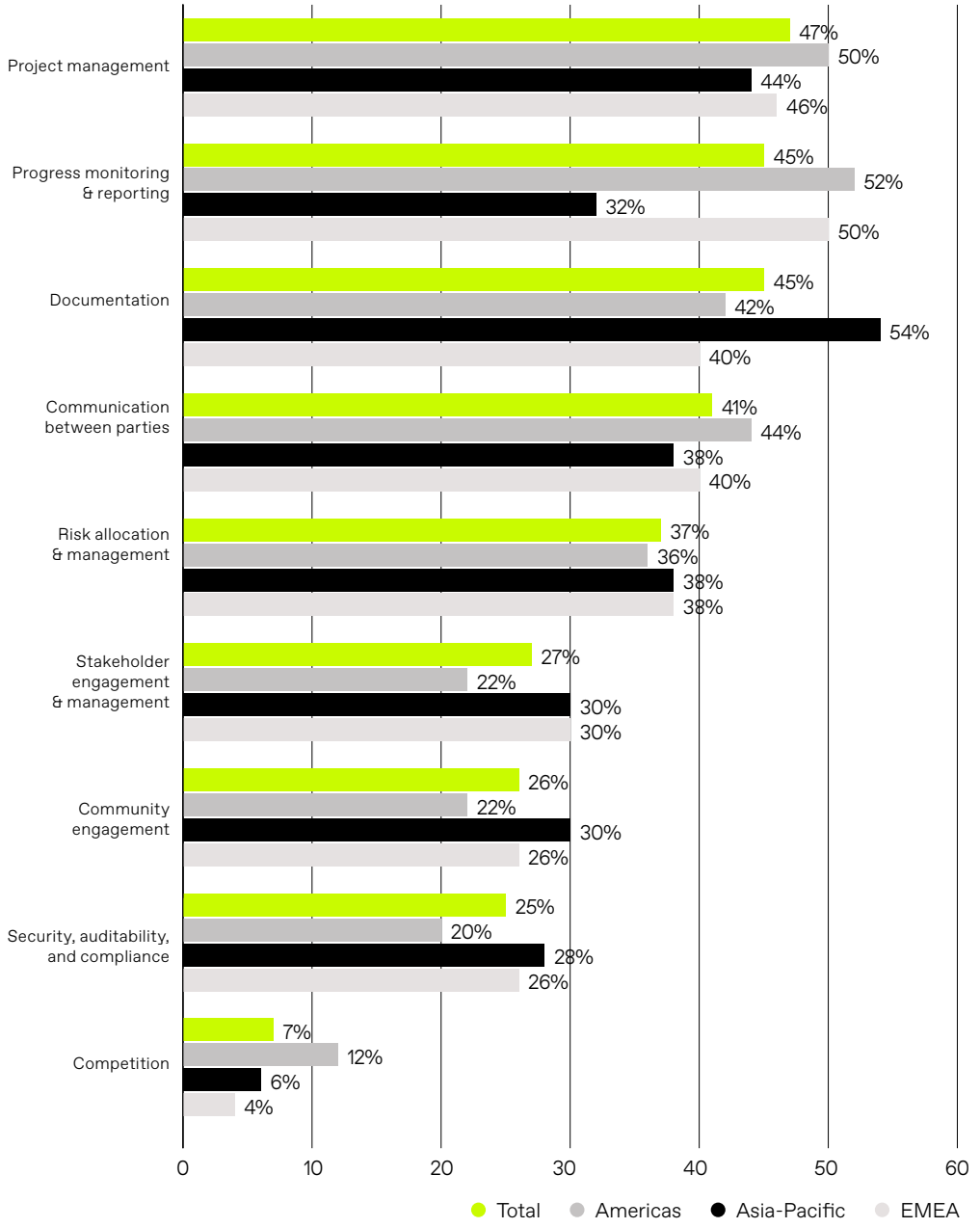
Meanwhile, the APAC market is still grappling with the sheer weight of documentation, cited as a key pain point by 54% of respondents. In Australia and New Zealand, this burden is driven by the vast amount of land involved and complex permission requirements.

Bailly pointed to how state governments, particularly those leading multi-stakeholder REZ programmes, have begun to proactively front-load project preparation before going to market. She noted that authorities are increasingly using digital platforms in the pre-market phase to centralise approvals, geotechnical data and early market engagement, "doing more work upfront before going to market" so that procurement processes are more structured once formal tenders are launched.

47%

of respondents identified project management to be one of the top three aspects of their most recent transaction in need of improvement.

Which aspects of the procurement process were most in need of improvement? (Select top three)



Ambition, access and collaboration in South Africa

Julie Rosa, Associate Director, Infrastructure Advisory at KPMG South Africa on the country's packed renewables pipeline, the limits of its grid capacity and how procurement is adapting to unlock new investment.

South Africa has an ambitious renewables pipeline. From a commercial and procurement perspective, what are the main challenges you're seeing?

The Renewable Energy Independent Power Producer Procurement Programme (REIPPP) was launched back in 2011 as the main government programme for procuring renewables projects from the private sector and overall, it's been very successful. I was involved in some of the earlier bid windows, and we're now at Bid Window 7.5. Alongside that, the Transmission Development Plan is expected to unlock around 56GW of new generation capacity over the next decade or so.

One of the biggest challenges currently is grid access. South Africa needs around 14,500km of new transmission lines, plus associated infrastructure and substations, to support this build-out. That's where a lot of the focus is now.

Beyond grid access, supply chain constraints are also significant. Long lead times for key equipment such as turbines, transformers and switchgear can affect project timelines. Foreign exchange risk is another factor that bidders need to price in. On top of that, South Africa has well defined socioeconomic development and localisation requirements under the programmes.

How does offtake risk factor into renewable procurement in South Africa?

Offtake risk is largely dealt with through a standardised project-agreement stack with Eskom as the buyer under the REIPPPP Power Purchase Agreements supported by the Implementation Agreement. Other mechanisms such as a credit guarantee vehicle are being looked at in some of the other programmes.

You're closely involved in the Independent Transmission Projects Procurement Programme (ITPPP). What is that programme designed to achieve?

The ITPPP is a response to grid constraints and ageing transmission infrastructure. Historically, most of South Africa's generation has been concentrated in Mpumalanga, close to the coal fields. By contrast, most solar generation is in the Northern Cape, and most wind generation is in the Western and Eastern Cape.

That geographical shift means the transmission network needs to be expanded. The ITPPP is a pilot programme at the moment, but it forms part of a broader Transmission Development Plan that envisages more than 14,500km of new lines.

We are acting as the financial transaction advisor to the Independent Power Producers (IPP) Office on this programme, alongside legal and technical advisors. From a professional perspective, it's one of the most significant and rewarding projects that I've worked on.

How has the liberalisation of generation licensing affected the market so far?

It's still unfolding, but it has already made a difference. Removing the cap on self-generation has supported strong growth in the commercial and industrial market, and there are now many IPPs that operate exclusively in that space.

We're also moving toward the establishment of the SAWEM (South African Wholesale Electricity Market) which will be important for energy trading and broader market liberalisation. From a generation perspective, the regulatory changes have been meaningful, even though the market is still evolving.

Supply chain disruption has been a global issue. How is it affecting contract structures and delivery risk?

Supply chain risk can show up in claims, variations and programme delays, particularly where equipment simply can't be delivered on time. Even with good planning, things can still go wrong.

When structuring programmes and drafting contracts, we try to mitigate that risk by involving technical, legal and financial advisors early, so the risk is properly understood and allocated. Even then, it remains a material risk on many projects.

How widely are dedicated digital platforms used in renewables infrastructure procurement in your experience?

It really depends on the sector and the organisation running the programme. On some government procurements, the process is still quite manual – submissions by email, physical tender drop-offs and so on. I've worked on projects that use digital platforms, and from a transaction advisor's perspective, the key benefit is the level of control and auditability. Having a clear audit trail throughout the process significantly reduces probity risk and helps protect the transaction advisor. I can only speak to the projects I've personally worked on, but usage of dedicated platforms isn't yet consistent across the market.

Our results show that a sizeable minority of respondents view their procurement processes as very efficient. Does that align with your experience, or do you think government agencies overestimate their procurement process efficiency?

The processes I've worked on have generally been efficient, although there has on occasion been a stop-start cadence in some projects. That was often caused by regulatory or policy uncertainty. In recent years, there has been greater regulatory and institutional certainty, supported by legislative changes such as the Electricity Regulation Amendment Act. That has helped programmes move forward more smoothly.

Looking ahead, where do you expect the most capital to be deployed over the next few years to support South Africa's renewables build-out?

Transmission. The ITP programme we're currently structuring is one of the largest infrastructure programme South Africa has undertaken since 1994, which gives a sense of its scale. There will be substantial capital flowing into transmission.

Generation investment will continue as well because it's essential for grid stability and energy security.

07 Procurement process: Reward and risk

What does success really look like in the renewable energy infrastructure procurement process? Executives reveal the key factors and risk allocation measures that contribute to successful procurement

The definition of successful renewable energy infrastructure procurement is evolving. While the ultimate goal remains reaching financial close, the journey to that milestone is now under unprecedented scrutiny. Success is defined by the ability to seamlessly move through complex tender cycles with radical transparency and speed, ensuring that the resulting contracts are built on a foundation of legal-grade data. It is essential that every decision made during the bidding stage can withstand the scrutiny of regulators and investors long after the deal is done.

To achieve this, government agencies, developers and transaction advisories need to be equipped with fit-for-purpose tools that fully support their workflows. The survey results illustrate how these expectations translate into day-to-day execution.

Nearly half of industry stakeholders (45%) view ongoing progress monitoring and reporting as one of the top three factors that contributed to the success of their most recent transaction. This is closely followed by risk allocation and management (39%), comprehensive project management (37%), high levels of security and auditability (35%) and stakeholder engagement (34%).

"Developing a procurement strategy and implementing it successfully really depends on comprehensive reporting and project management. Obtaining supplier responses and engaging with them relies on secure digital systems," said the general manager of a government agency in the US.

APAC's energy transition spans a wide array of market structures, regulatory regimes and institutional authorities. This heterogeneity – encompassing national regulators, transmission operators, local permitting bodies and, in some cases, cross-border grid initiatives – often requires developers to coordinate across multiple agencies before securing grid access and approvals. That dynamic is reflected in the survey results: 52% of Asia-Pacific respondents identify ongoing progress monitoring and reporting as a key driver of procurement success, compared with 40% in the Americas, underscoring the importance of execution visibility in complex, multi-stakeholder environments.

By contrast, respondents in EMEA place greater emphasis on security, auditability and compliance (44%), consistent with a more formalised regulatory landscape where procedural defensibility and stakeholder scrutiny play a larger role in determining project outcomes.

Modern digital infrastructure procurement platforms like Ansarada Procure solves these various challenges with technical capabilities that transform a transaction into a frictionless, auditable workflow. Centralised, real-time dashboards that serve as a single project record and immutable, automated audit trails that log every interaction, from document uploads to Q&A cycles, ensure teams avoid spending hours consolidating status updates. This provides project leads with an instant, bird's eye view of where a tender stands, which milestones are lagging and which stakeholders are falling behind.

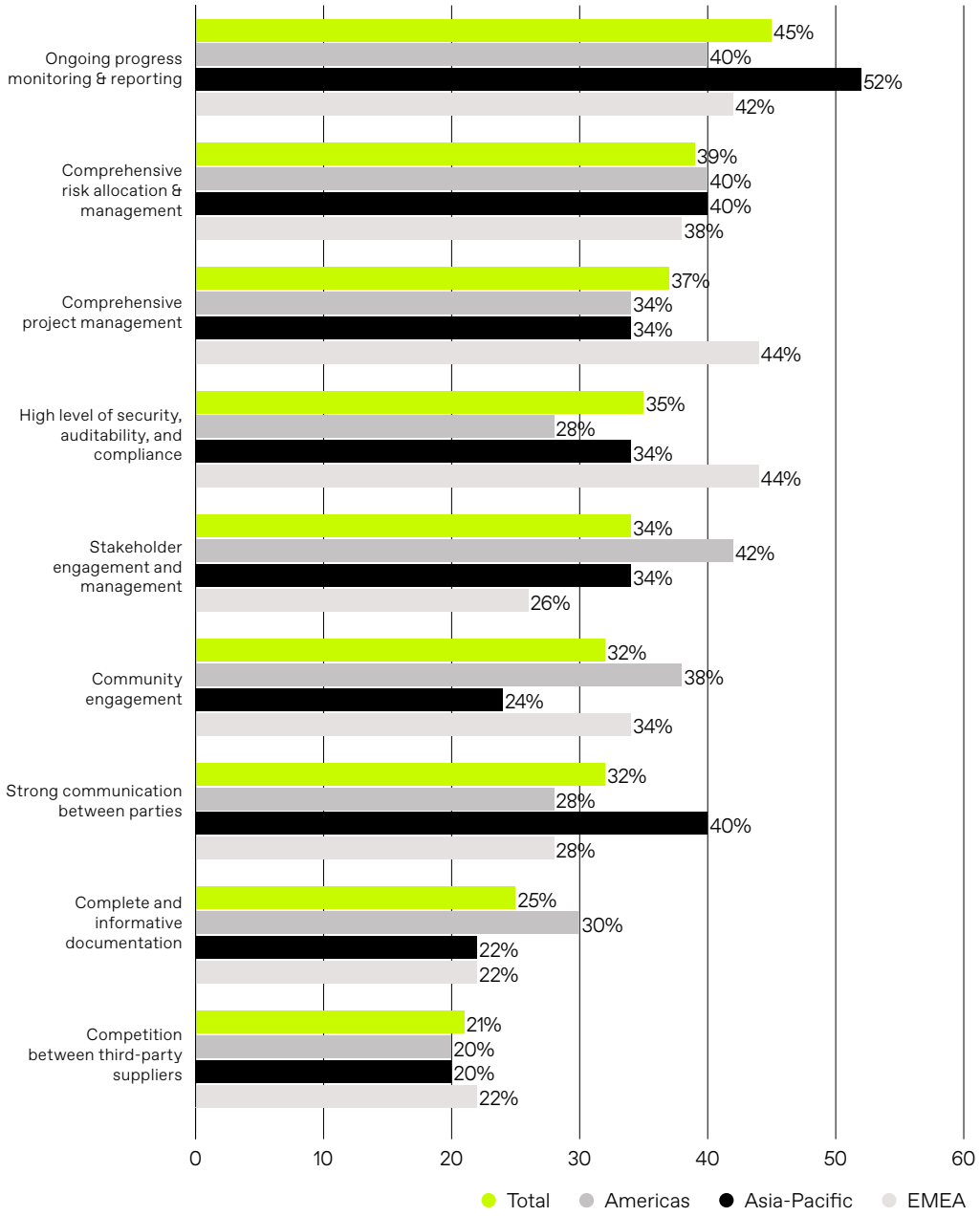
"The challenge isn't just holding the data; it's the lifecycle of that data. In these high-value transactions, you need to know exactly who saw what and when," said Andy Potter, Business Development Director in EMEA at Ansarada. "If you're still using fragmented systems or traditional cloud storage, you lose that 'golden thread' of accountability that modern regulators and investors now demand."

With Ansarada Procure, stakeholder engagement is also supported via dedicated communication modules, such as secure two-way request for information (RFI) and Q&A tools. These features ensure that all parties receive identical information simultaneously, maintaining a level playing field and fostering the transparency required to avoid bid protests or litigation.

45%

of industry stakeholders view ongoing progress monitoring and reporting as one of the top three factors that contributed to the success of their most recent transaction.

What are the most important factors contributing to the success of a procurement process? (Select top three)



Risk allocation

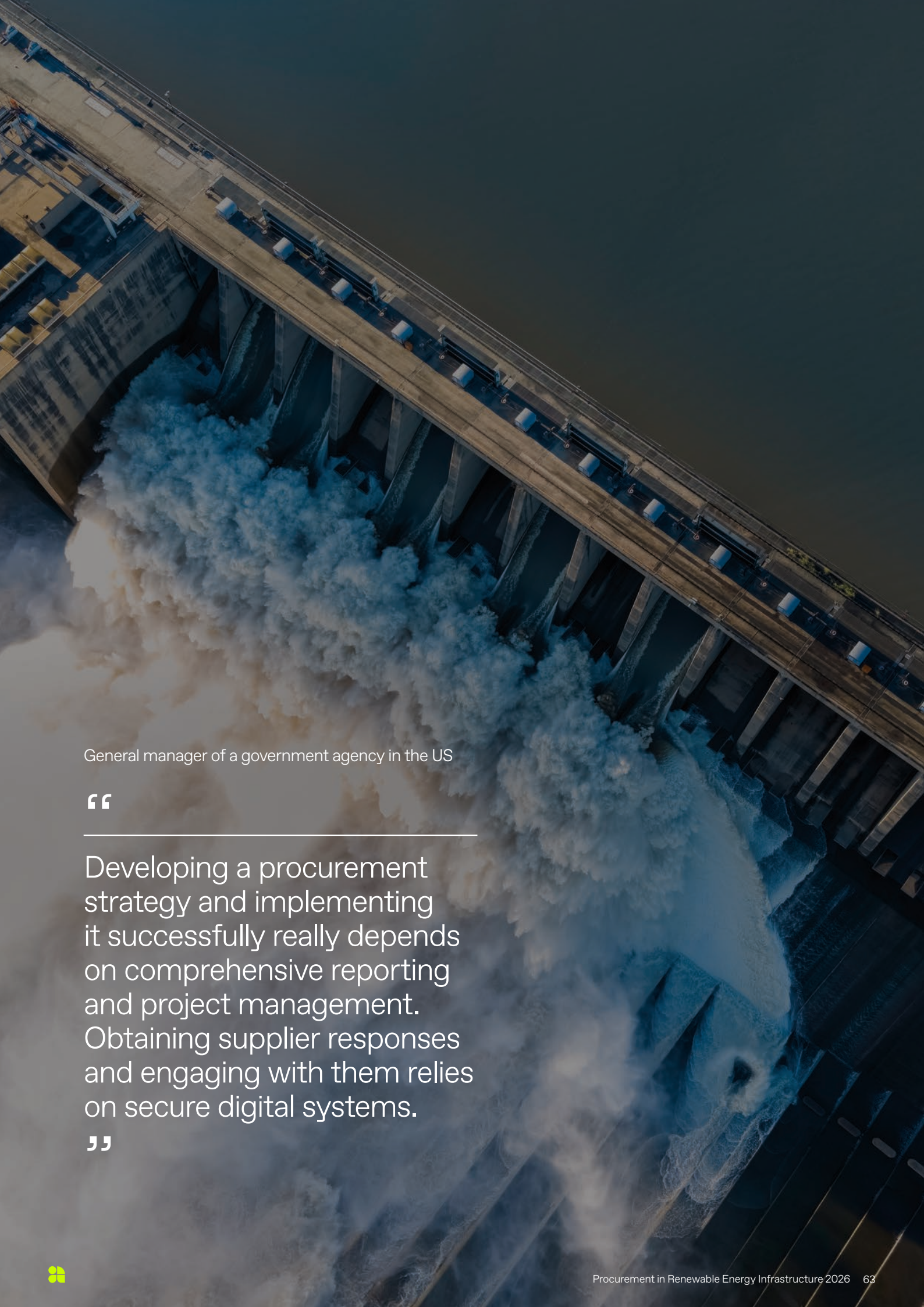
Tightening margins amid supply chain frictions have raised the stakes of risk allocation and management during the tender phase, right from the earliest stages of market engagement. In an era of high borrowing rates and volatile material costs, the risk premium added by bidders can determine whether a project reaches financial close or stalls indefinitely. Consequently, the ability to clearly define and assign these liabilities during the bidding process has become a critical competitive advantage for procuring authorities and developers.

Nearly three-quarters of respondents (73%) shared that they consider advanced risk analysis tools to be a cornerstone of effective risk oversight during the procurement process. However, there are regional and sectoral contrasts between how these exposures are viewed.

For example, in EMEA, risk mitigation is inextricably linked to regulatory expectations, with 84% of respondents highlighting the integration of ESG matters as one of their key strategies for allocating and managing risk. For these entities, particularly those based in Europe, ESG is a legal mandate. Without clear criteria woven into the tender documentation, projects risk non-compliance with regional laws and potentially the loss of access to financing.

Conversely, the private sector maintains a more clinical focus on technical and financial exposure during bidding. Only 13% of privately-owned developers view ESG as their primary tool for managing risk at this stage, instead favouring advanced analysis and data modelling. For this group, the transparency of risk is the ultimate currency for achieving a bankable and competitive bid.

Beyond data analysis, the industry continues to lean heavily on financial safeguards to balance the scales before a preferred bidder is selected. Just over half of all respondents (53%) pointed to comprehensive insurance as a critical risk mitigator, alongside financial risk-sharing incentives (51%). However, these financial instruments are only as effective as the awareness and due diligence that precedes them. As the deputy director of a developer in France put it: “Risk allocation and management is important to mitigate any immediate and long-term threats. The parties in procurement should have good awareness of these potential risks before signing contracts.”



General manager of a government agency in the US

“

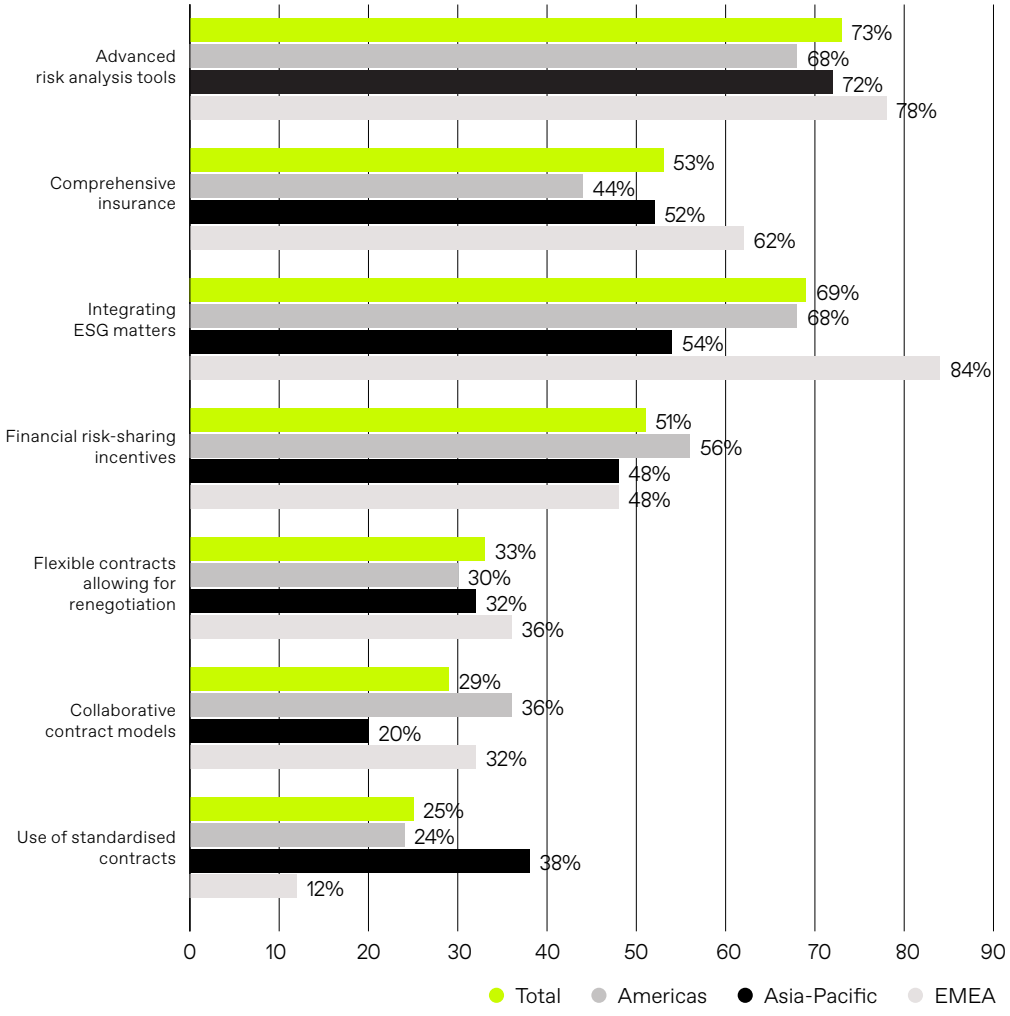
Developing a procurement strategy and implementing it successfully really depends on comprehensive reporting and project management. Obtaining supplier responses and engaging with them relies on secure digital systems.

”

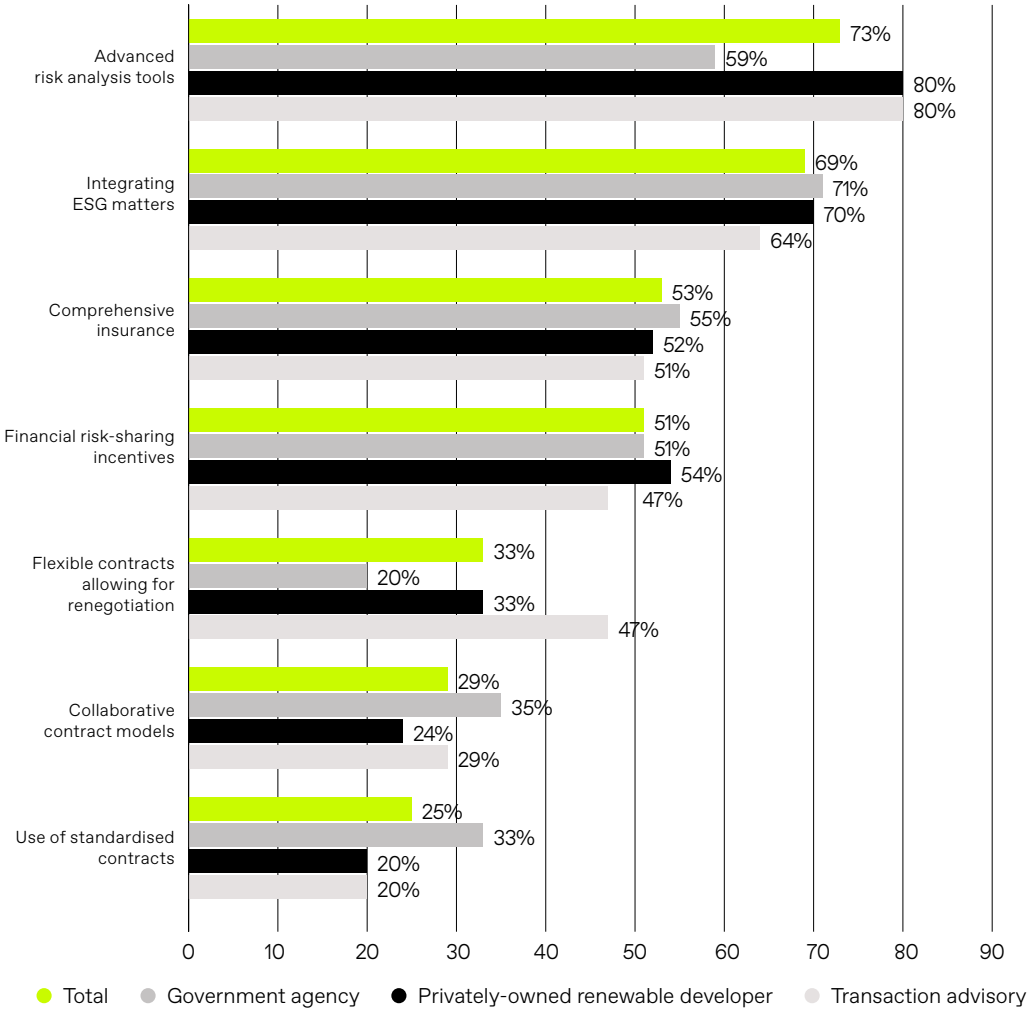
In regions where documentation hurdles are more common, the management of risk during the tender often comes down to proactive stakeholder communication to prevent delays in permitting or land access. The managing director of a transaction advisory in China highlighted this friction, saying: "Sometimes the acquisition of land and other documentation procedures can take time and create problems for communication with external stakeholders. But engaging stakeholders and managing their expectations can lead to a smoother procurement process."

Ultimately, the goal is to ensure that the preferred bidder has the demonstrated capacity to carry the proposed contractual liabilities. By centralising this data within a secure, auditable environment, all parties can ensure that the risk profile transferred at the point of award is transparent, fully priced and backed by an immutable record of the bidder's commitments.

Which of the following are key to effective risk allocation in renewable energy infrastructure projects? (Select all that apply)



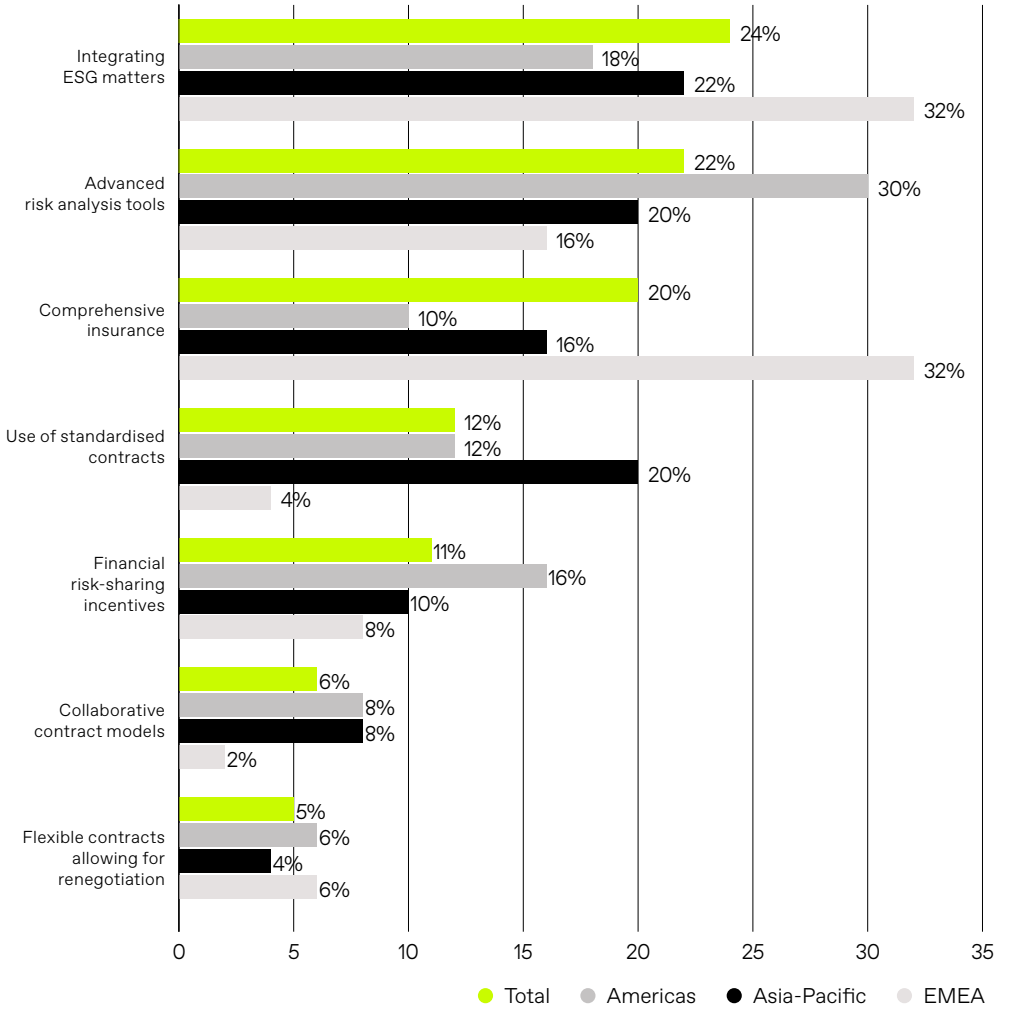
Which of the following are key to effective risk allocation in renewable energy infrastructure projects? (Select all that apply)



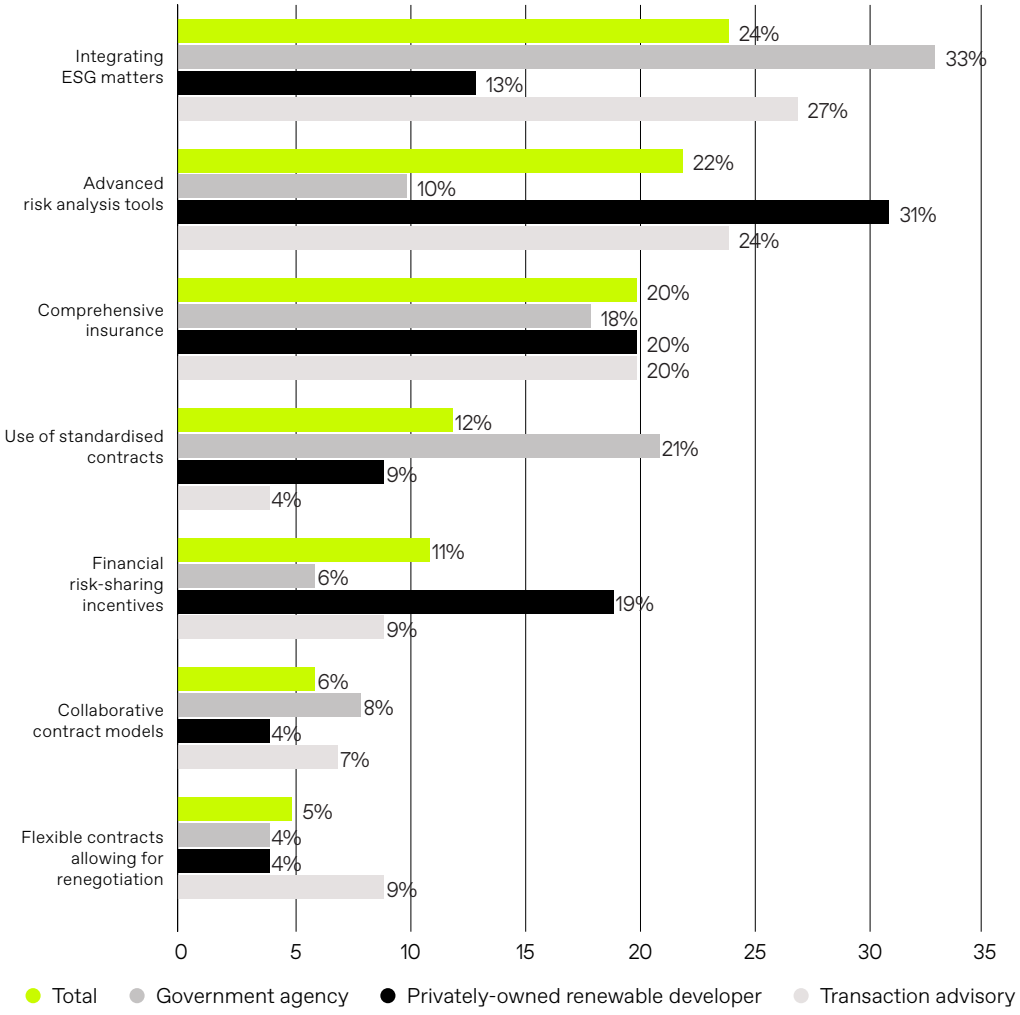
73%

shared that they consider advanced risk analysis tools to be a cornerstone of effective risk oversight during the procurement process.

Which of the following are key to effective risk allocation in renewable energy infrastructure projects? (Select the most important)



Which of the following are key to effective risk allocation in renewable energy infrastructure projects? (Select the most important)



08 Procurement and digitalisation

Digitalisation, automation and data need to be at the heart of the infrastructure procurement process. Those that fail to keep up with the pace of technology, risk becoming left behind entirely

Automated processes

The integration of digital tools and automation into renewable energy infrastructure procurement is fast becoming a baseline requirement for managing these high-value tenders. With a single offshore wind or solar PV project involving thousands of technical blueprints, environmental impact assessments and intricate financial models, the administrative burden has moved beyond the capacity of traditional manual oversight.

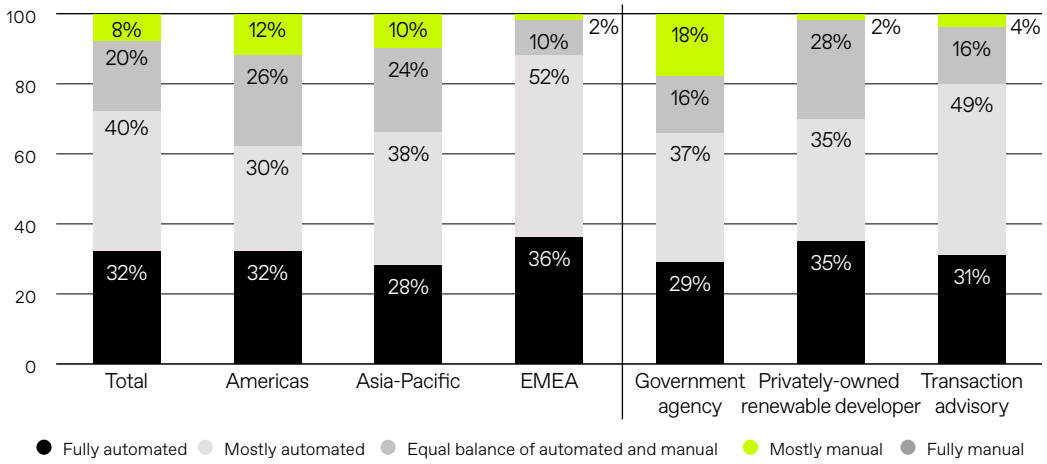
Procuring authorities increasingly recognise that "speed to market" is dictated by the speed of information flows. Consequently, the adoption of dedicated platforms is fundamental to clearing the bottlenecks that have traditionally stalled progress from market engagement to contract. By automating repetitive elements of the tender – such as document distribution, milestone tracking and initial compliance checks – procurement leads can focus their resources on the strategic evaluation of bidders.

Almost three quarters of respondents (72%) now characterise their renewable energy infrastructure procurement processes as either fully or mostly automated, moving away from manual touchpoints that slow progress and obscure project monitoring. However, this adoption is not uniform. EMEA leads the charge with an 88% automation rate, significantly outpacing Asia-Pacific (66%) and the Americas (62%).

Transaction advisories are currently the most advanced adopters, with 80% embracing high levels of automation, followed by developers at 70%. Government agencies demonstrate the least adoption with 66% expressing confidence that their process is largely automated. Public sector agencies have historically been slower to embrace digitalisation, often hampered by legacy systems, budget approval cycles and organisational resistance.

McMahon noted that disparities often stem from how public sector agencies view the initial transition. While the "cost of change" is a commonly perceived barrier, the operational cost of not changing — in the form of human error, information leakage and document lag — is becoming untenable. The result is a procurement environment where avoidable inefficiencies persist and manual oversight in high-value tenders creates "process noise" that sophisticated bidders are increasingly unwilling to tolerate.

How automated is your current procurement process for major renewable energy infrastructure projects?



Transaction advisories are the most advanced adopters, with 80% embracing high levels of automation, followed by developers at 70%.

Digital benefits

The benefits of digitising renewable energy infrastructure procurement vary according to the operational frictions faced by different stakeholders. Across the survey as a whole, improved communication emerged as a significant benefit, selected by 44% of respondents. Beneath that headline, the data points to distinct priorities for different organisations. Government agencies place greater emphasis on user experience, with 53% identifying UX improvements as a key benefit, while transaction advisories are more focused on cost reduction, cited by 42% of respondents in this group.

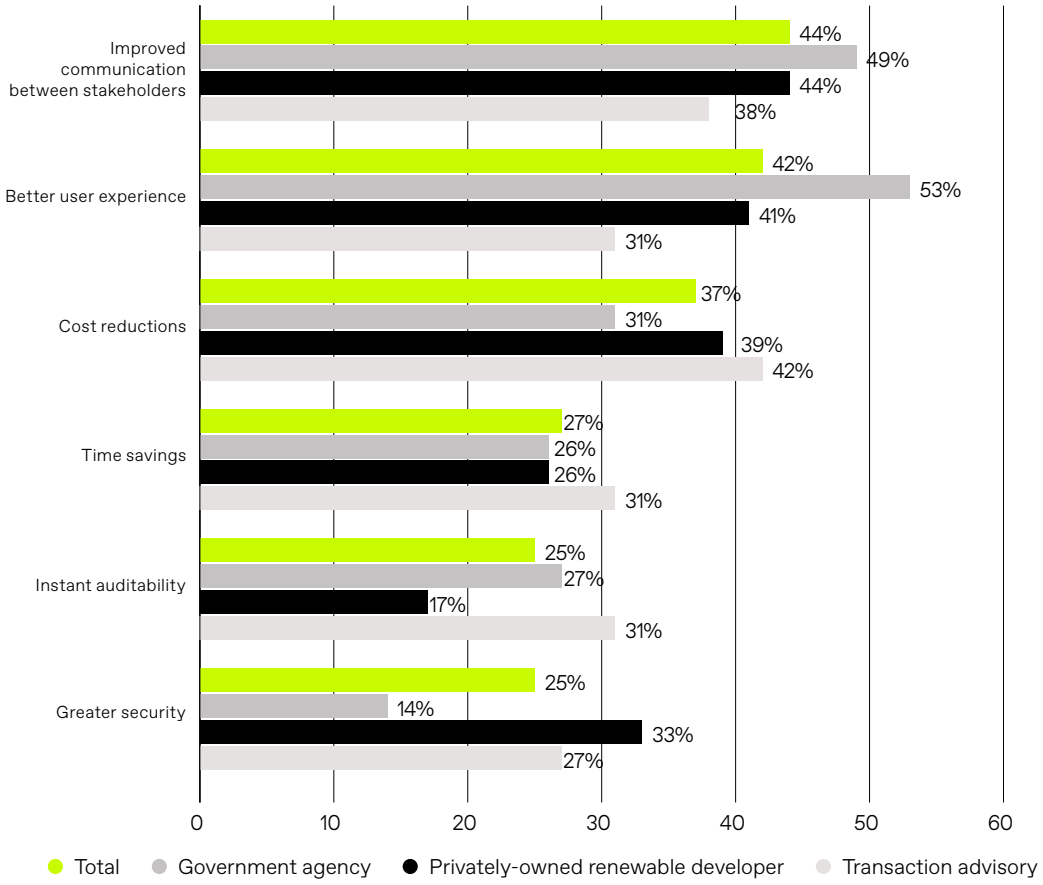
For organisations prioritising communication, the value lies in replacing fragmented, informal information sharing with structured, auditable interaction. Potter highlighted how dedicated digital environments change the mechanics of stakeholder engagement: "In these high-stakes tenders, communication isn't just about sending a message, it's about knowing that the message was received, understood and acted upon. When you host communication in a dedicated environment, you move from hoping people saw a critical update to knowing they did via read receipts and a centralised Q&A. It removes the ambiguity that usually leads to delays."

Clear, traceable communication also underpins the UX benefits identified by government agencies, which extend beyond internal efficiency. An intuitive, well-structured digital environment sends a strong signal to the market about the quality of the opportunity itself. For bidders, it indicates that a project is professionally managed, legally robust and backed by a credible sponsor – signals that can influence both bid quality and participation levels.

Bailly draws a clear distinction between basic document hosting and platforms designed to actively streamline procurement workflows: "What we are seeing is a move away from the 'data room as a bucket' toward the 'data room as a workflow.' It's no longer just about storing documents, but about the intelligence of how those documents move through the tender."

She added that this distinction has tangible implications for bidder behaviour and execution risk. "If you are managing a US$50 million wind farm tender via a standard cloud storage link, the process is unnecessarily inefficient and carries a risk profile that sophisticated bidders will shy away from."

What are the major benefits of digitalising the procurement process for renewable energy infrastructure projects? (Select top two)



Respondents are using on average 3.8 different programmes to manage their procurement process.

Digital challenges

There is a clear and growing consensus that dedicated digital tools are now central to how renewables procurement is conducted. That consensus is supported by a strong cultural appetite for change: 86% of respondents say their organisation is open to adopting new technologies to improve procurement processes.

Nevertheless, there are still points of resistance: 40% of respondents cited compliance as a major hurdle to digitalising procurement, reflecting an industry grappling with overlapping regulatory obligations, cybersecurity requirements and data sovereignty concerns.

Compliance check

Central to this challenge is the NIS2 Directive, which requires essential and important entities in covered sectors to adopt "all-hazards" cybersecurity risk-management measures. By extending these obligations to supplier relationships and to the acquisition and development of network and information systems, NIS2 effectively pushes data-protection and supply-chain security into the infrastructure procurement phase – well before an asset reaches commissioning. In jurisdictions where the directive is already in force, greenfield tenders are now treated as compliance-critical exercises, with cybersecurity and supply-chain controls scrutinised from the outset.

This regulatory maturity in EMEA explains why over half of the region's respondents (56%) pointed to compliance as a major challenge. In contrast, the survey reveals a different set of obstacles in Asia-Pacific, where only 24% of respondents cited regulation as a significant impediment to digitalisation.

Organisations here more commonly grapple with data silos (46%) and budgetary constraints (40%), although as deputy director at a transaction advisory firm in Vietnam noted, data management practices often have compliance implications: "Data-driven decisions cannot be made if data is siloed. There are also regulatory challenges to consider, particularly where there is limited control over how data is used or manipulated," they said.

Industry stakeholders in EMEA are being pushed toward digitalisation by stringent legal mandates, whereas APAC respondents are focused on the foundational task of resolving system fragmentation. The two regions are essentially at different stages of the same journey: APAC is working to dismantle data silos that inhibit information flow, while EMEA is concerned with ensuring that once data moves, it does so within a secure environment.

91%

of respondents claimed to use purpose-built procurement software.

Relying on generalist tools like email or cloud folders is increasingly a liability. In response, many organisations are turning to specialised platforms like Ansarada Procure that offer granular access controls aligned with NIS2 and SOCI (Security of Critical Infrastructure) standards.

Security stakes

It is a mistake to view security solely through a compliance lens. For renewable energy infrastructure procurement, the stakes include the protection of high-value intellectual property and the mitigation of potentially catastrophic reputational damage. A breach during the tender phase can expose critical technical blueprints, giving competitors or hostile actors insights into national grid vulnerabilities long before construction begins.

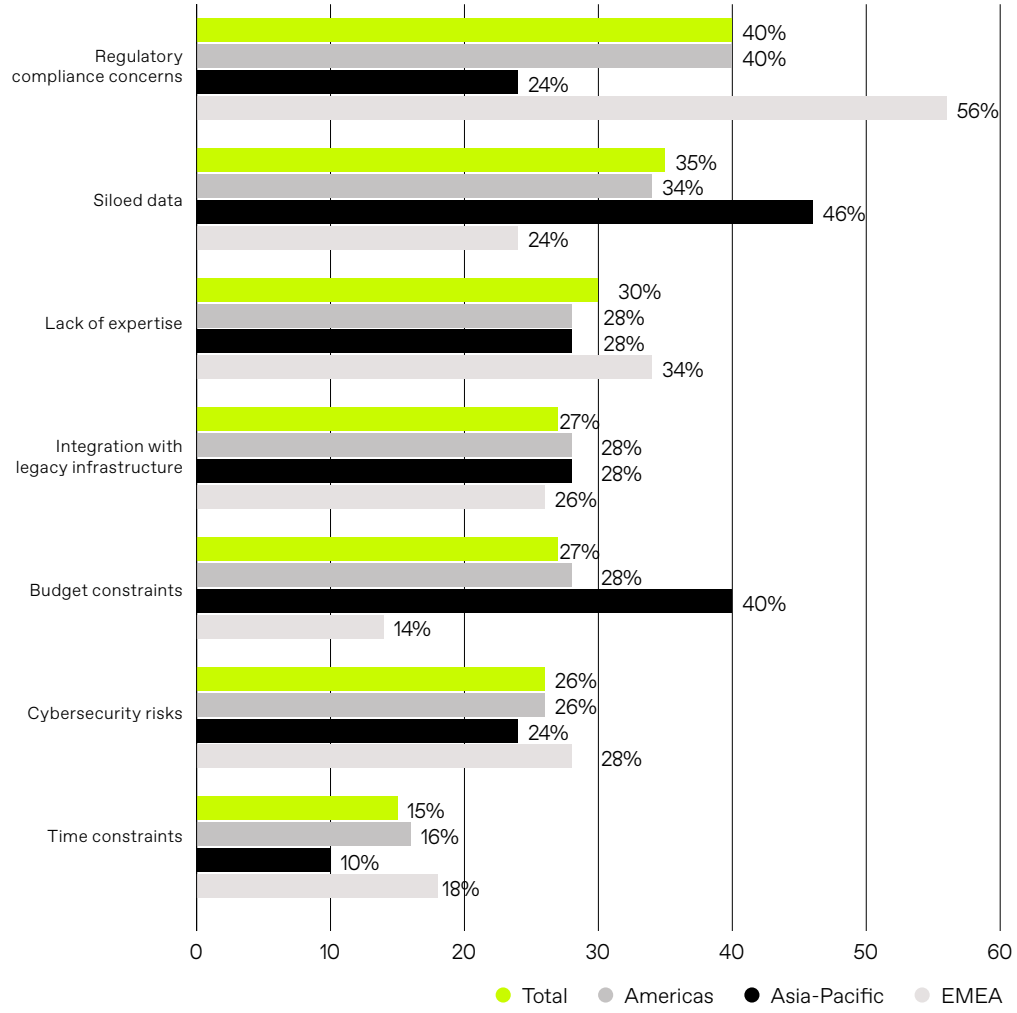
The data suggest that stronger regulatory obligations correlate with higher confidence in procurement security. Overall, 61% are either "very" or "completely" confident about the data security of their organisation's procurement process. This rises to 72% of EMEA respondents, who are operating under the strictures of NIS2.

However, the figures fall to 58% and 54% of Americas and APAC respondents respectively. In fact, 24% and 22% of respondents from these regions say they are not at all confident about the data security of their procurement process. This highlights the danger of relying on "good enough" generalist tools in an era of sophisticated industrial threats.

Technological safeguards like digital rights management have also become non-negotiable. Dedicated platforms provide bank-grade protection and sophisticated features such as remote file kill-switches that allow administrators to revoke access to documents even after they have been downloaded to a user's device. This ensures that sensitive intellectual property remains secure throughout and beyond the project lifecycle.

"You need to be able to expire the permission on a document irrespective of its location, even if it's sitting on a hard drive somewhere. So the next time someone tries to use it, it won't work," Potter said. "That is a totally different value proposition from just having security of data in a platform. It makes it possible to stop someone from opening a file they've already downloaded the day they resign and move to another firm."

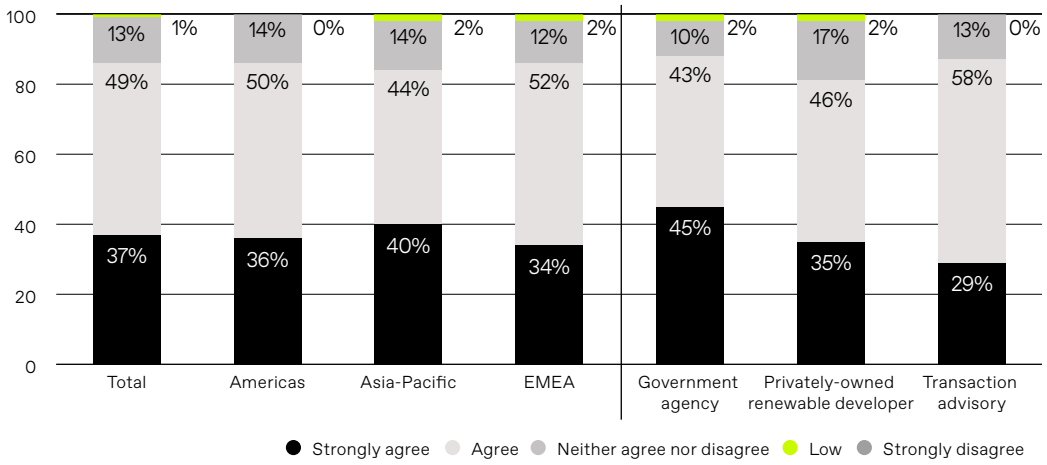
What are the key challenges to digitalising procurement? (Select top two)



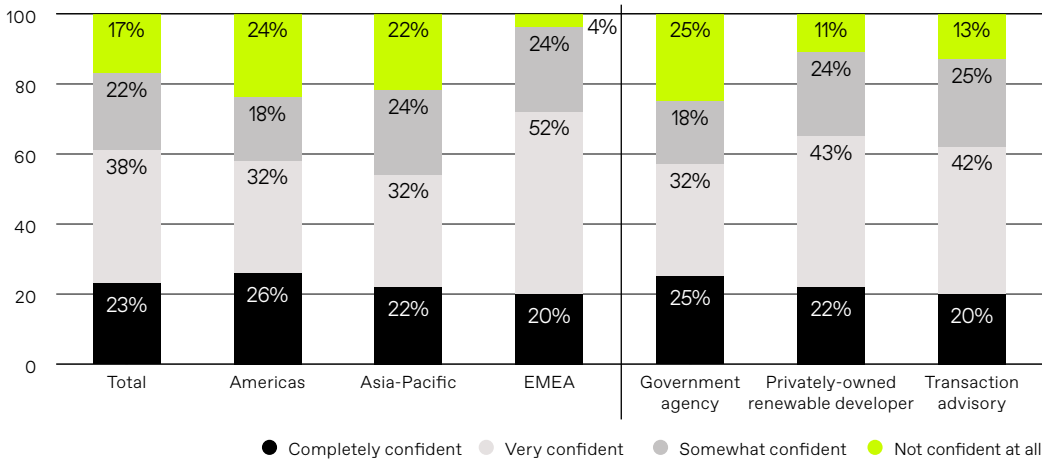
55%

of respondents still use email to manage these critical workflows.

To what extent do you agree or disagree with the following statement: “My organisation is open to adopting new technologies to improve procurement processes”?



How confident are you about the data security of your procurement process?



Software usage

Industry stakeholders increasingly understand that the quality of the infrastructure procurement software they have in place is a marker of project integrity and viability, enabling rigorous risk management, supply chain visibility and stakeholder coordination. Four in five respondents described this level of quality as "highly important", with two in five going so far as to say it is "essential".

Fully, 91% of respondents claimed to use purpose-built procurement software. However, a deeper look at the data reveals a significant integration gap. In EMEA, organisations are using an average of 3.8 different programmes to manage their procurement process – a figure that drops only slightly to 3.2 in the Americas and 3.1 in APAC.

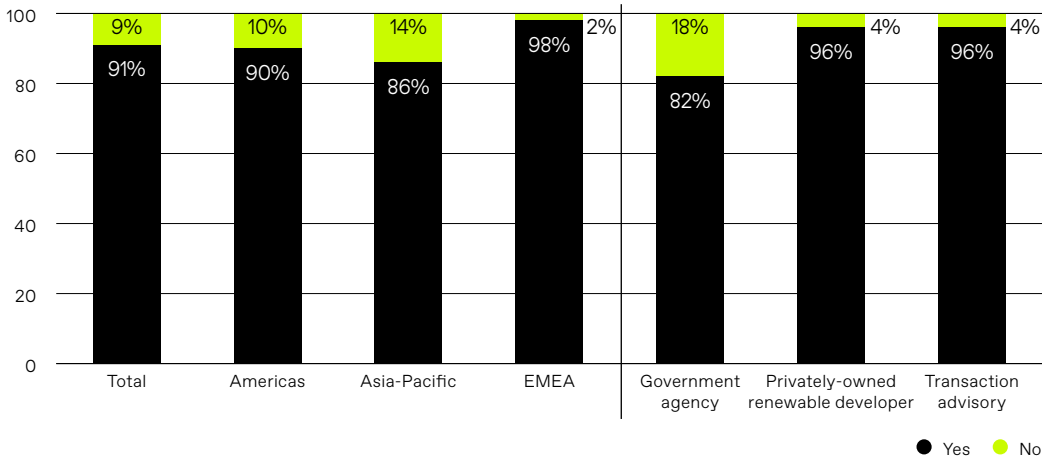
This shows that "purpose-built" does not mean "all-in-one". Instead, teams are cobbling together a 'Frankenstack' of disconnected tools, pairing legacy enterprise resource planning (ERP) modules with generalist file-sharing sites like SharePoint, project management boards, and, most critically, email to compensate for missing communication functionality.

"The industry has gone through a phase where it was either 'best of breed' or it was a massive ERP in place," said Potter. "We're now in a world where people are trying to glue together a whole set of disparate applications and the result is nobody really understands how it all fits together."

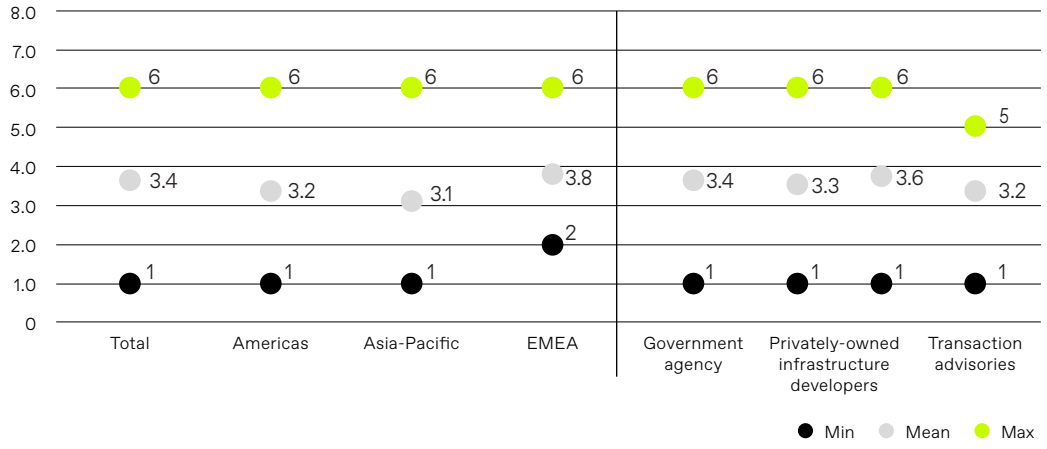
This fragmentation directly undermines data security and process efficiency. When a tender is spread across multiple disjointed platforms, organisations often fall into version control chaos, where a bidder might receive a technical specification via email that contradicts the latest version stored in a document folder. This creates a critical audit exposure that means the procurement will fail to stand up to the scrutiny of probity officers.

Furthermore, the complexity of managing these disconnected systems often drives teams toward shadow processes. When platforms are too cumbersome or fragmented to use effectively, users revert to the familiarity of Excel and Outlook, leaving the project's most sensitive data unencrypted and unmonitored.

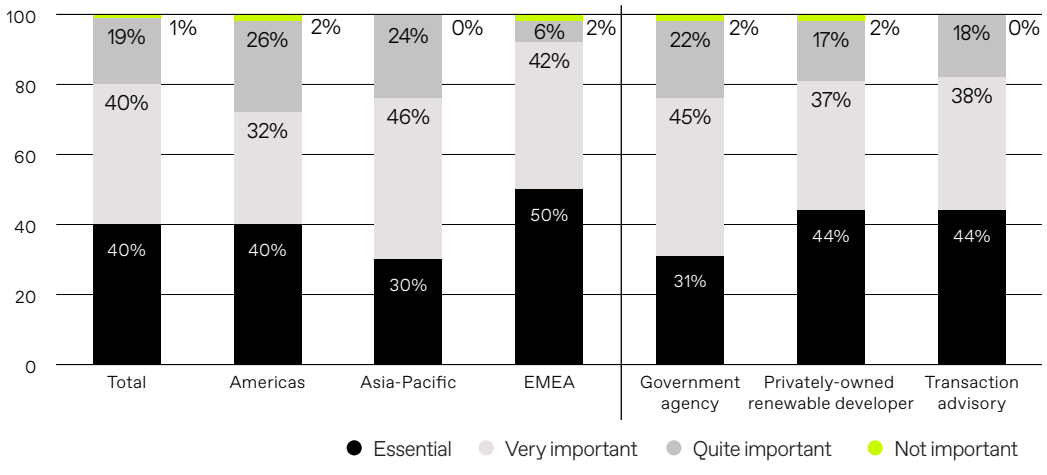
Was purpose-built procurement software used?



How many software programs or platforms are you currently using to run your procurement process? (State the number)



In your experience, how important is the quality of the software platform(s) used in renewable energy infrastructure procurement?



Managing stakeholder correspondence

The industry's reliance on multiple programmes is most visible in how organisations handle their two most sensitive assets: bidder correspondence and core documentation. While infrastructure procurement-specific software is the lead tool for these tasks, used by 89% of respondents, it is rarely deployed in isolation. Instead, it typically sits alongside a crowded mix of document management systems (81%) and project management tools (69%). Most concerning, however, is that 55% of respondents still use email to manage these critical workflows.

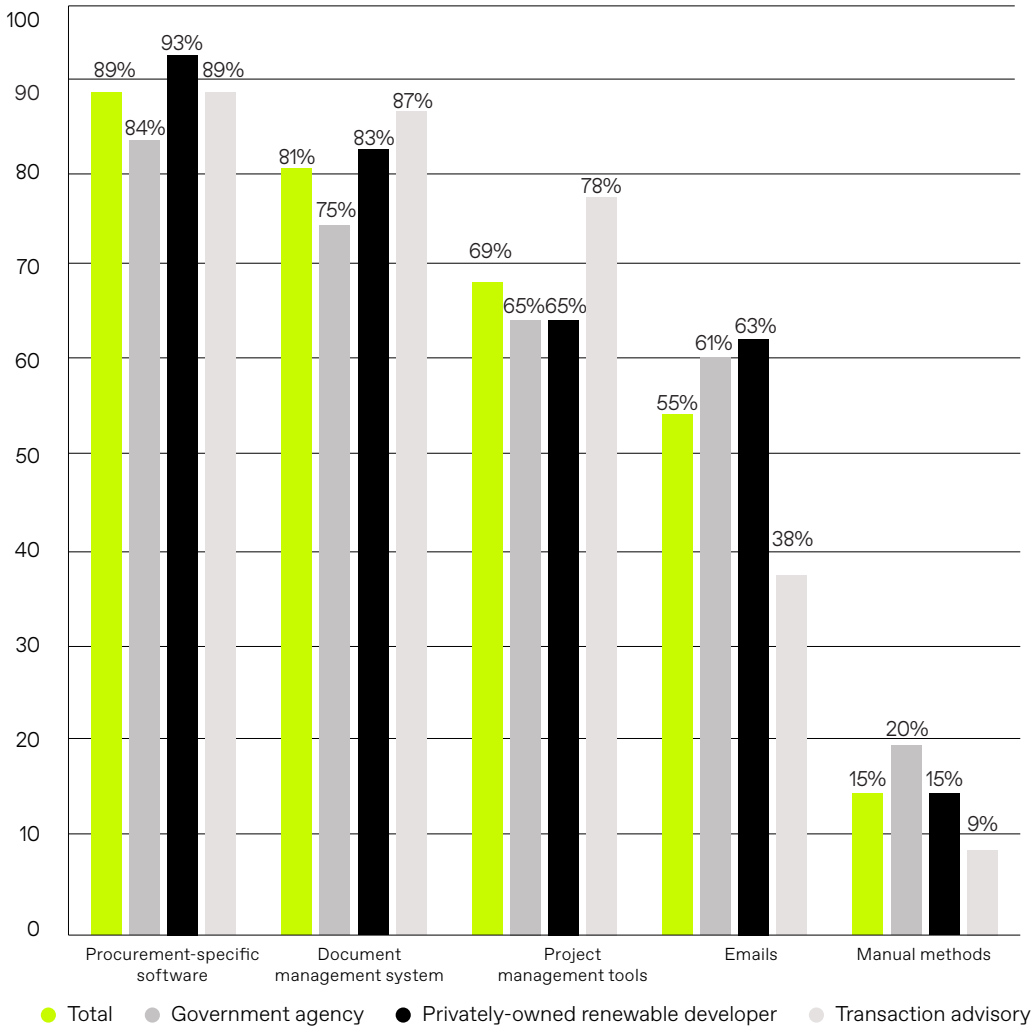
Ad hoc, improvised toolsets create a significant operational burden, forcing teams to manually reconcile information across multiple environments in order to maintain a coherent project view. When communication and documentation are dispersed in this way, it becomes impossible to establish the single, authoritative record required for high-value tenders.

Allowing correspondence to sit across multiple platforms or, worse, managed across inboxes, exposes organisations to unnecessary reputational, legal and security risks. "It's incredibly difficult to manage reputational risk effectively when you have that level of disintegration," said Potter.

For greenfield developers in particular, this issue is increasingly a matter of legal exposure rather than operational inconvenience. While NIS2 formally applies to operational entities, its provisions on supply-chain security and security in acquisition and development effectively extend compliance expectations into the procurement phase.

Managing tenders through unsecured email or loosely connected applications risks embedding vulnerabilities that can surface as regulatory delays, remediation costs or liability once an asset moves into operation. As renewables deployment continues to scale, the adoption of unified, purpose-built procurement environments is becoming essential to ensure projects are secure by design – from the first request for proposal (RFP) through to grid connection.

How do you currently manage the correspondence and document management with bidders and internal stakeholders throughout the procurement process? (Select all that apply)



09 Conclusion: Rising to the challenge

As the complexity, technology and interconnectivity around renewable energy infrastructure projects increase exponentially, the procurement process has never been more demanding

The defining challenge for the global renewable energy infrastructure sector is no longer policy ambition or access to capital, but execution. The industry is transitioning from pure capacity build-out to the integrated deployment of generation within complex, flexible energy systems that depend on modernised grid and storage infrastructure and real-time balancing.

Modern energy projects now depend on tightly sequenced delivery across multiple asset types and a greater number of technical dependencies and regulatory approval points. As these moving parts multiply, execution risk increasingly concentrates at the procurement phase, placing new demands on how tenders are structured, governed and managed, and rendering traditional, manual approaches unworkable.

With this in mind, the following takeaways set out practical considerations for keeping large-scale renewable energy infrastructure projects deliverable, compliant and financeable as the margin for error continues to narrow.

1. Bridging the operational divide

Relying on disparate platforms and the continued use of unsecured email for bidder communications undermines the single source of truth required in high-value tenders. This fragmentation does more than just slow down progress, it creates systemic vulnerabilities. Without a centralised, forensic record of communications and documentation, organisations can be left exposed to version-control errors and potentially damaging reputational risk. Putting in place a centralised, purpose-built procurement platform is a prerequisite for maintaining project bankability.

2. Regulatory readiness as a default state

For greenfield developers, NIS2 serves as a broader indicator of where the market is heading: cybersecurity and supply chain oversight are now expected to be integrated from the outset. By treating the procurement process as the starting point for compliance, developers can avoid the downstream risk of locking in vulnerabilities that lead to regulatory delays or liability once an asset moves into its operational phase.

3. Securing the licence to operate

The success of the energy transition relies on transparency and accountability to external stakeholders. Whether repowering ageing sites or developing new megaprojects, the capacity to provide a verifiable, auditable record of every decision is essential. This digital accountability is what secures the social licence required to build at scale as projects come under rising public scrutiny and require closer engagement.

4. Addressing the institutional efficiency gap

The disparity between private-sector agility and institutional inertia in the public sector remains a critical bottleneck. Often driven by budget concerns and a lack of organisational will, this resistance to change carries a high price. The operational risk and the cost of maintaining legacy workarounds are now significantly greater than the investment required to take the digital leap. Bridging this gap through standardised, secure, collaborative platforms is vital to ensuring that policy-driven renewable energy infrastructure investment translates into grid-connected energy outputs.

5. Mitigating interface risk in multi-asset portfolios

The move toward hybrid sites – combining wind, solar, and storage – introduces significant interface risk, where the coordination between different technical packages and contractors becomes a potential failure point. Managing these multi-asset portfolios requires moving beyond simple document storage toward active information management. By centralising procurement data, developers can identify technical or commercial gaps between contracts early, protecting project margins and preventing the timeline slippage that can threaten long-term returns.

Bring order to complex procurement processes

Whether you're a government agency, advisory firm, PPP specialist or private sector entity looking to run your next project, when it comes to building critical infrastructure and running a complex RFP process, everyone wants to reduce risk and increase efficiency. But increasing complexity means that's only going to get harder. With Procure, our world-class security and functionality give you oversight throughout the project. Track your bidders' status, run a probity-proven process, conduct Q&As and secure documents from afar, with ease.

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