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EXECUTIVE SEARCH · MANAGEMENT CONSULTANTS

RENEWABLE ENERGY 2026: NAVIGATING COMPLEXITY, LEADING THE TRANSITION

EXECUTIVE SUMMARY

The renewable energy sector moves through 2026 at a pivotal moment. Renewables overtook coal as the world's largest source of electricity in 2025 for the first time in over a century, yet the path forward is defined as much by complexity as by opportunity.

AI is reshaping demand on two fronts: driving extraordinary growth in electricity consumption through data centre proliferation, whilst simultaneously enabling smarter grid management and efficiency gains.

Capital remains available, but geopolitical disruption, policy shifts, and rising financing costs are forcing greater discipline, with investors gravitating towards resilient, scalable platforms over growth at any cost.

Digital transformation has moved from pilot to core operations, supply chain resilience has become a strategic priority, and sustainable fuels are gaining importance for sectors that cannot be electrified.

Across all of these dynamics, one factor emerges consistently as the differentiator: leadership capability. Organisations that secure executives combining technical depth with commercial acumen, digital literacy, and the ability to navigate complex regulatory environments will be best positioned to lead the transition.

The renewable energy sector continues to confront a complex landscape shaped by surging electricity demand, rapid artificial intelligence integration, and persistent supply chain challenges. Whilst global renewable capacity continues to expand at unprecedented levels, organisations must still navigate market volatility, regulatory shifts, and infrastructure constraints as they position themselves for the next phase of the energy transition.





TABLE OF CONTENTS

01 AI AND ELECTRIFICATION: DRIVING UNPRECEDENTED POWER DEMAND

02 MARKET VOLATILITY AND CAPITAL DISCIPLINE: THE NEW REALITY FOR RENEWABLE ENERGY

03 RENEWABLE EXPANSION: PROGRESS AMIDST PERSISTENT CHALLENGES

04 GLOBAL PERSPECTIVES: REGIONAL RENEWABLE ENERGY INSIGHTS

05 DIGITAL TRANSFORMATION: FROM PILOT PROJECTS TO CORE OPERATIONS

06 LEADING THE RENEWABLE ENERGY TRANSITION: THE IMPERATIVE FOR ACTION



01

AI AND ELECTRIFICATION: DRIVING UNPRECEDENTED POWER DEMAND

Artificial intelligence isn't merely consuming more energy; it's fundamentally reshaping demand patterns across the renewable energy industry. According to Deloitte's 2026 Energy Industry Outlook, peak power demand could surge by 26% by 2035, propelled by the rapid growth of data centres and electrification. Global electricity demand grew by 3% in 2025, and the IEA now projects an average annual growth rate of 3.6% through 2030 - around 50% higher than the previous decade's average - driven by industrial activity, air conditioning usage, and the proliferation of data centres. Investment in AI and data centres continues to accelerate dramatically, with major technology companies committing USD 320 billion in 2025, up from USD 230 billion the previous year. Data centre electricity demand alone is projected to increase by approximately 240 TWh relative to 2024 levels through 2030.

Yet AI also presents solutions to the strains it creates. Utilities are employing artificial intelligence to forecast demand, balance loads, and strengthen grid resilience in real time. The result is an emerging, interconnected energy ecosystem where intelligence itself becomes a virtual supply of power through enhanced efficiency and operational flexibility.

Key Insight:

The renewable energy industry is experiencing a dual transformation. Whilst AI-driven data centres contribute to unprecedented electricity demand growth, these same technologies are simultaneously enabling smarter grid management and operational optimisation. This paradox defines the current renewable energy market landscape: technology is both the challenge and the solution. Companies that successfully harness AI for efficiency gains whilst managing its energy footprint will gain significant competitive advantages in the evolving green energy industry.

02

MARKET VOLATILITY AND CAPITAL DISCIPLINE: THE NEW REALITY FOR RENEWABLE ENERGY

The renewable energy industry is entering a phase characterised by abundant investment capital, but with a sharpened focus on stability, scalability, and disciplined returns. Tariffs, policy fluctuations, and rising financing costs are compelling companies to fundamentally reassess their investment strategies, scrutinising every pound of expenditure whilst measuring resilience as carefully as growth potential.

Recent geopolitical events have brought this volatility into sharp focus, with major energy transit routes disrupted and oil prices experiencing extreme swings within single trading sessions - a vivid reminder of how quickly instability can cascade through global energy markets.

Power and renewable companies face compressed timelines and heightened compliance requirements following legislative changes affecting clean energy provisions. The sector must navigate these regulatory shifts whilst managing rising operational costs and market uncertainties that challenge profitability. In response, developers are prioritising efficiency improvements, with investors gravitating towards mature assets, scalable platforms, and hybrid portfolios capable of delivering reliable returns and strategic optionality.

For leadership across the renewable energy industry, the critical question has shifted. It's no longer simply whether to invest, but rather where efficiency and innovation can generate the most substantial impact. This refined approach to capital allocation reflects a maturing industry that recognises sustainable growth requires both ambition and prudence.





03

RENEWABLE EXPANSION: PROGRESS AMIDST PERSISTENT CHALLENGES

2025 marked a landmark moment for the global energy transition. For the first time in over a century, renewables overtook coal as the largest source of electricity worldwide, reaching a 33.8% share of global generation. Solar was the defining force: global solar generation rose by 636 TWh – the largest increase of any power source on record – meeting three-quarters of global electricity demand growth for the year. Looking ahead, both solar and wind are expected to overtake nuclear in 2026, underscoring the pace at which the generation mix continues to shift.

However, structural challenges persist in integration and storage, limiting the full utilisation of renewable capacity. Countries like Brazil, which maintains an electricity matrix with more than 80% renewable sources, face growing curtailment issues. This reflects limitations in:

- 1.transmission infrastructure
- 2.system operation capabilities
- 3.storage mechanisms at scale.

These obstacles must be overcome to increase renewable utilisation and prevent the wastage of clean energy generation.

Through 2026 and beyond, these trends are expected to intensify, with greater deployment of battery storage, new transmission lines, and regulatory adjustments aimed at creating more flexible electrical systems. Important auctions for transmission projects and capacity are forecast, representing substantial volumes of registered projects. These initiatives should expand infrastructure, reinforce security of supply, and facilitate integration of additional renewable sources, reducing the need for scheduled generation cuts during periods of high production.

04

GLOBAL PERSPECTIVES: REGIONAL RENEWABLE ENERGY INSIGHTS

Whilst the direction of the global energy transition is clear, the pace, priorities, and challenges shaping renewable energy markets continue to vary significantly by region.

Across global markets, organisations are balancing infrastructure investment, regulatory change, energy security, supply chain pressures, and decarbonisation targets, whilst responding to rising electricity demand and increasing operational complexity.

These dynamics are reshaping leadership requirements across the sector. Investors, developers, utilities, and infrastructure operators increasingly require executives who can combine technical expertise, commercial acumen, and the ability to navigate evolving market conditions.

Horton International's Energy & Infrastructure consultants share perspectives from their respective regions, highlighting the trends, opportunities, and leadership priorities shaping the next phase of the renewable energy transition.





Southeast Asia's Renewable Energy Market

By Graeme Deegan | Partner
Horton International Philippines and Thailand

Southeast Asia's renewable energy sector is entering a more mature, execution-driven phase. Governments across the region, from the Philippines and Vietnam to Indonesia are accelerating targets for solar, wind, and emerging technologies such as offshore wind and energy storage, supported by clearer regulatory frameworks and stronger public-private partnerships. Investment activity remains strong, with both regional and international players competing for scalable, bankable projects, particularly in solar and hybrid solutions.

At the same time, talent demand is evolving. Organisations are seeking leaders who combine technical depth with commercial and stakeholder management expertise, particularly in areas such as grid integration, project delivery, and ESG compliance. This is where Horton's Engineering & Infrastructure Group adds value, bringing together consultants from across the globe, offering deep local insight alongside international perspective to help clients secure the leadership needed to deliver complex energy projects. As the market continues to grow, access to the right talent will remain a key differentiator.



Australia: Energy Transition and Innovation

By Dr Jacqueline Clements | Partner
Horton International Australia

Australia's energy transition is anchored in a target of 82% renewable electricity by 2030, with investment focused on wind, solar and storage. Australia has one of the highest levels of rooftop solar penetration globally, with more than four million homes and businesses generating electricity on-site.

Battery storage is scaling rapidly across both residential and utility segments, with Australia emerging as one of the most advanced residential battery markets globally. Mining remains Australia's largest sector and is central to the energy transition, with demand for critical minerals such as lithium and nickel linking the country directly to global supply chains and underpinning electrification and clean energy deployment. With Australia joining Horizon Europe, international collaboration expands, accelerating access to global research networks and innovation partnerships in clean energy and critical minerals.

These dynamics are shaping demand for leadership. Organisations are seeking leaders with technical depth, international perspective and strong networks, able to work closely with government, navigate policy and regulatory frameworks, and operate across unionised environments from major cities to remote locations.



United Kingdom: Execution, Discipline and Leadership Capability

By Chris Drake | Managing Partner
Horton International UK

In the UK, the energy transition is firmly in its execution phase, with the themes outlined in this article becoming increasingly pronounced. Rising electricity demand—driven by electrification, data centres, and AI adoption—is intensifying pressure on grid capacity and accelerating the need for investment in transmission, storage, and system flexibility.

At the same time, the market is shifting towards greater capital discipline. Investors are prioritising scalable platforms, operational efficiency, and predictable returns, particularly against a backdrop of higher financing costs. This is driving a stronger focus on asset optimisation and selective deployment of capital across the sector.

Delivery complexity is also increasing. Planning constraints, supply chain pressures, and evolving regulation are extending project timelines and elevating execution risk. As a result, leadership capability has become a key differentiator.

Demand remains strong for senior executives who can combine infrastructure delivery expertise with financial rigour and digital acumen. Those able to navigate complexity, embed resilience, and leverage technology to enhance performance will be best placed to lead in the next phase of the UK's renewable energy transition.



United Kingdom: Energy Security, Investment and Transformation

By Matt Venning | Partner
Horton International UK

With current geopolitical uncertainty, and the impact on energy security, pricing and supply, there's an even greater need for bold decision-making in the UK renewables sector.

Investment in the energy transition and rapid growth and transformation in the sector are increasingly key to global stability.

It's an exciting time to be supporting the energy & infrastructure industry



France: Policy, Capital and Energy Transition

By Edouard Crédey | Partner
Horton International France

The current trend in France is strongly shaped by political decision-making. Public, industrial and local stakeholders disagree over the energy mix to be prioritized, while nuclear power is once again at the center of the debate. The development of renewables depends on the alignment of a complex ecosystem – the state, industrial players, local authorities, grid operators and investors – whose interests may diverge, unlike the major historical infrastructures that were largely driven by public authorities. The future trajectory will likely rely on a combination of state leadership, regulatory stability and the significant mobilization of private capital.

These constant changes require stakeholders to remain continuously agile and to mobilize the right talents.



Europe & Middle East: From Vision to Delivery

By Daniel Greiner | Principal
Horton International Germany

Across Oil & Gas and Aviation, the energy transition in 2026 is becoming far more execution-focused. In both Europe and the Middle East, investment appetite remains strong across renewables, grid infrastructure, storage and digital energy solutions, but the conversation has clearly shifted from vision to delivery, capital discipline and resilience.

In Oil & Gas, the most forward-looking players are broadening their portfolios across lower-carbon businesses, power, hydrogen and carbon management, while still recognising that energy security and industrial reliability remain non-negotiable.

In aviation, sustainable aviation fuel is now firmly on the strategic agenda, but scaling supply, improving commercial viability and building the right cross-industry partnerships will determine who leads and who follows. What stands out most is the leadership requirement this creates.

Companies increasingly need executives who can operate across traditional energy, infrastructure, technology and decarbonisation agendas at the same time. AI, automation and data are no longer side topics; they are becoming central to planning, asset optimisation and competitiveness. The winners will be those who combine ambition with speed, execution and leadership depth.

05

DIGITAL TRANSFORMATION: FROM PILOT PROJECTS TO CORE OPERATIONS

Digital transformation has progressed beyond pilots to core operations. AI and automation are scaling efficiency and redefining productivity across the renewable energy landscape. Predictive maintenance is reducing downtime across grids and plants. Companies are adopting digital tools for supply chain visibility, asset management, and customer engagement. Those failing to integrate digital capabilities risk being outpaced by their own system limitations.

Strategic Imperative:

Digital transformation represents the defining competitive battleground for renewable energy industry trends in 2026. The companies positioning themselves for long-term success are those integrating predictive analytics, automated systems, and real-time monitoring into every facet of their operations: embedding intelligence into decision-making processes, creating resilient supply chains, and delivering measurable efficiency gains that translate directly to improved financial performance and market positioning.

Sustainable Fuels: Bridging the Transition Gap

Despite renewable advances, fossil fuel demand continued growing through 2025. Sectors difficult to electrify will depend on liquid fuels, intensifying development of sustainable alternatives.

Sustainable aviation fuel (SAF) and green diesel are strategic alternatives for hard-to-decarbonise sectors. Bio-methane shows particular promise, combining emission reduction with agro-industrial waste solutions whilst integrating into natural gas markets.

Supply Chain Resilience: From Fragility to Strategic Advantage

The renewable energy sector faces compounding structural vulnerabilities. Equipment lead times stretching to years, policy shifts impacting pipelines, and geopolitical uncertainties redrawing trade routes all create significant exposure across the value chain. Critical mineral constraints have elevated energy security to a strategic priority at both national and corporate levels.

Adaptive companies design for volatility. Many enhance adaptability through:

- Securing inventory and dual-sourcing suppliers to mitigate failure points
- Optimising trade routes and re-shoring manufacturing to reduce vulnerabilities
- Forming partnerships and public-private collaborations for critical resources
- Adopting digital technologies for supply chain visibility and agility.

Resilience is now measurable in opportunities captured, not downtime avoided.

06

LEADING THE RENEWABLE ENERGY TRANSITION: THE IMPERATIVE FOR ACTION

Success going forward depends on balancing innovation with risk, growth with discipline, automation with judgement. Greater demand for efficient sustainable fuel routes runs alongside advances in carbon capture and industrial efficiency. Companies must strengthen planning capacity through robust emissions metrics, increased renewable energy procurement, operational efficiency investment, comprehensive risk assessment, and sustainable fuel strategies.

To lead this transition companies must act decisively, build digital foundations, reinforce resilient capital strategies, and forge value chain alliance. The convergence of AI, market discipline, infrastructure investment, and sustainable fuel development creates unprecedented opportunities for prepared organisations.

The future of renewable energy belongs to those balancing ambition with execution, vision with pragmatism, and growth with sustainability.



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