Rethinking renewables investment

Capturing value in renewables with an active investment approach

(5-minute read)

Over the past decade, renewables have transitioned from an emerging to a core asset class. The sector was underpinned by policy support, with infrastructure strategies focused on acquiring operational assets benefitting from incentives and securing long-term power purchase agreements (PPAs) for income visibility.

Today, the investment case for renewables remains compelling, but it is evolving. It is being driven by three key forces:

1) Accelerating AI-driven power demand increasing power generation needs; **2)** Rising power price volatility due to a greater variable generation load on the system reshaping income profiles; and **3)** A policy pivot toward energy security, grid flexibility and system resilience to support the evolution of changing supply and demand patterns.

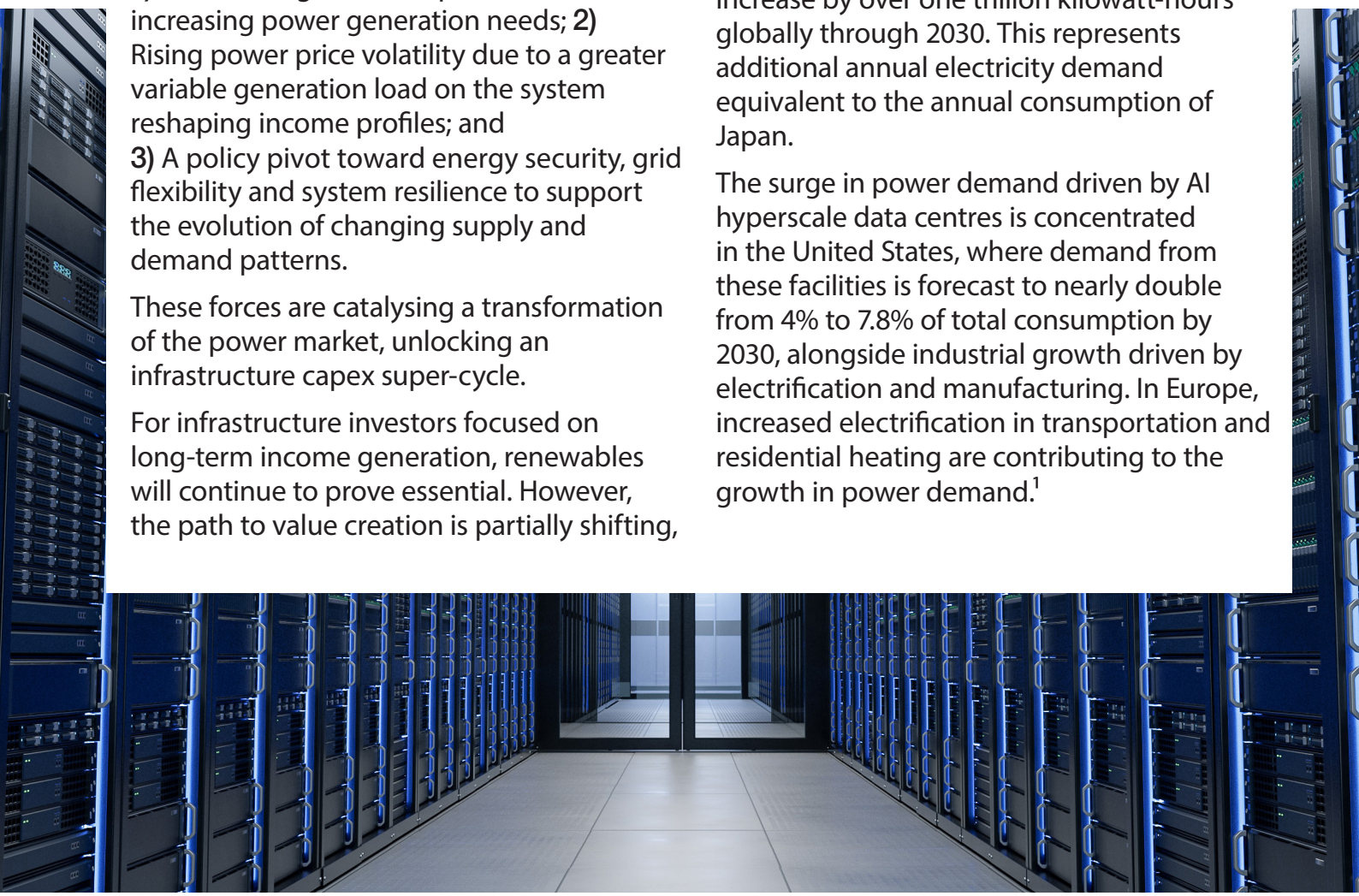
These forces are catalysing a transformation of the power market, unlocking an infrastructure capex super-cycle.

For infrastructure investors focused on long-term income generation, renewables will continue to prove essential. However, the path to value creation is partially shifting, with investors increasingly benefitting from optionality to capture incremental value via active asset management. This includes location-based project selection, repowering for existing assets, operational enhancements, dynamic contracting of revenues and integration of battery storage to benefit from system flexibility.

The market is evolving

Power demand accelerates: AI is contributing to rapid power consumption growth, with annual total demand set to increase by over one trillion kilowatt-hours globally through 2030. This represents additional annual electricity demand equivalent to the annual consumption of Japan.

The surge in power demand driven by AI hyperscale data centres is concentrated in the United States, where demand from these facilities is forecast to nearly double from 4% to 7.8% of total consumption by 2030, alongside industrial growth driven by electrification and manufacturing. In Europe, increased electrification in transportation and residential heating are contributing to the growth in power demand.[1]



[1] IEA, May 2026

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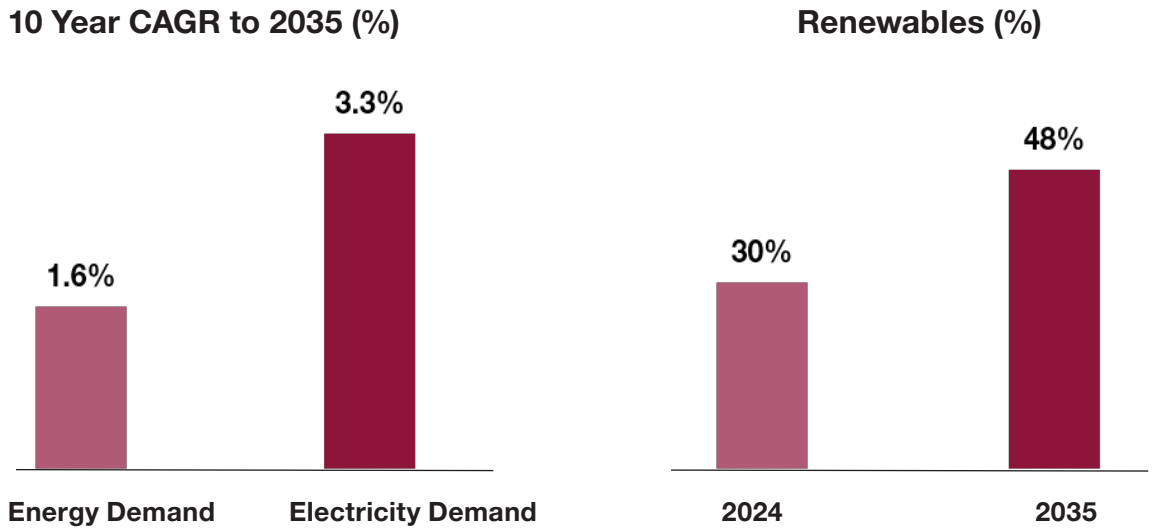
Power demand is also changing in profile and concentration. In the United States, data centre–driven power demand grew approximately 18 percent year-on-year, but is mainly concentrated in PJM (13 interrelated mid-Atlantic and Midwest states) and Texas.[2] These are the regions where transmission and interconnection constraints are most visible, and the resulting strain on infrastructure is creating potential power shortages in 2027 and 2028, with regulation focused on measures to de-bottleneck the grid. Likewise, Europe and the U.K. are seeing a surge in power demand, triggering grid congestions.

Renewables deliver speed-to-power: In many markets, gas remains the marginal fuel and the most critical flexibility resource. However, against this backdrop, renewables, especially solar, retain two key advantages over gas: deployment speed and lower costs.

Renewables are scalable, with deployment speed often forming part of the value proposition in tight systems, as offtakers prioritise on-site, off-grid power solutions amid lengthier permitting times for grid connections. Utility-scale solar has typically been among the shortest lead-time technologies, often averaging approximately 14–24 months, while new gas capacity tends to face longer and more variable timelines due to permitting, infrastructure, and equipment availability.

Energy & electricity demand and renewables as a percent of total power demand[4]



Despite reduced policy support in the U.S., including the recent changes introduced by the One Big Beautiful Bill Act (OBBBA), the economic case for renewables remains compelling, with typical 2025 levelised costs for onshore wind and solar around $61 per megawatt-hour, below the approximately $66 per megawatt-hour for combined-cycle gas, even excluding subsidies.[3]

Energy Security and Renewables: In Europe, energy security has moved to the centre of the investment narrative following the recent conflict in the Middle East and the renewed awareness of exposure to imported gas.

The continent's power system remains structurally linked to marginal gas pricing, meaning supply disruptions or price spikes in

[2] IEA, May 2026

[3] Estimates based on data from Lazard's 2025 Levelized Cost of Energy (LCOE) analysis. The $61/MWh clean energy figure is a blended average of 2025 onshore wind ($61.50/MWh midpoint) and utility-scale solar ($58/MWh midpoint). The $66/MWh natural gas figure represents a downside sensitivity rather than the standard national midpoint ($78.5/MWh), assuming highly optimistic parameters such as depressed fuel costs (approximately $3.5/MMBtu) and maximum turbine efficiency.

[4] EIA, Current Policies Scenario, December 2025. There is no guarantee that the forecast highlighted will materialize.

LNG can translate into higher electricity costs; jeopardising economic growth. In this context, renewables play a critical role in reducing reliance on imported energy and stabilising long-term energy costs.

The role of battery storage: In Europe, where renewables account for a larger share of electricity generation than in the U.S., the rapid build-out of wind and solar has led to more frequent negative prices and greater volatility. Within this context, the co-location of battery energy storage systems (BESS) with renewables is becoming increasingly important, providing the flexibility needed to manage these dynamics while enabling investors to capture additional value from price spreads.

In 2025, alongside a solid market for PPA agreements, Europe has seen the emergence of a growing market for flexibility purchase agreements (FPAs). This is enabling asset owners to monetise the flexibility of a BESS providing them with a revenue floor.[5] This trajectory is likely to emerge across parts of the U.S. as renewable penetration rises.

An opportunity for dynamic value creation

An active approach: Localised demand growth and the need for rapid capacity additions, driven by data centre power demand can support higher power prices. This is creating opportunities for PPA renegotiation and making repowering more attractive where capacity can be increased, benefitting investors adopting a more active asset management approach.

At the same time, stronger but increasingly localised power demand means the market is no longer pricing renewables as a one-way trade. This is creating a more selective environment where skilled infrastructure investors can identify assets in markets offering the most compelling risk-adjusted returns. More flexible contractual structures, including battery-linked contracts and active power trading strategies are enabling investors to access additional sources of value beyond traditional PPAs. This reinforces the case for a more active investment approach.

In contrast to Europe and the U.K., where the policy landscape has remained stable, in the U.S., the OBBBA has recently reshaped the incentive landscape. It has led to an acceleration in new projects aimed at capturing fading subsidies, but it has also reduced market liquidity for new operational projects coming to the market. For investors focused on the resilience of market trends and looking through policy volatility, this has widened entry returns relative to recent years.

This entry window is enhanced by targeted U.S. policies promoting streamlined permitting for self-powered data centres,

[5] Pexapart, February 2026

unlocking additional development opportunities for agile investors.[6] This dynamic is further supported by a broader, rates-driven repricing across long-duration assets, with higher discount rates improving entry points across core infrastructure sectors, including operational renewables supported by long-term income visibility.

The investment rationale

Renewables are increasingly the backbone of power systems in North America and Europe, as a practical response to rising demand, energy security, and the build-out needs of the AI economy. However, the infrastructure market has moved beyond the early era of renewables-as-bond-proxy. For investors, that combination of factors underpinning the investment case for renewables is powerful. They can also focus on selecting technological and geographical combinations where system dynamics, such as flexibility needs, enable additional value creation.

Entry points are shifting, dispersion is rising, and value can increasingly be created after acquisition, through contracting strategies, operational optimisation, repowering and PPA renegotiation. As renewables penetration rises and volatility increases, storage and hybrid solutions become central tools to protect capture rates and enhance optionality. As a result, renewables platforms are evolving from single contracted cash flows into multi-layered revenue stacks, where investors can actively design exposure across income, downside protection and upside participation.

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[6] Exec. Order No. 14318, 90 Fed. Reg.35385 (23 July 2025). "Accelerating Federal Permitting of Data Center Infrastructure"

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