



FINANCING THE FUTURE OF ENERGY: INSURANCE AS AN ENABLER

February 2026

In association with



XL Insurance
Reinsurance



CONTENTS

03

Energy in 2026:
a motor for growth

04

The issues of financing
energy infrastructure

05

Giving investors
a stable outlook

06

Making sure there
is a return on
investment

08

Skin in the game:
from finance to captives

10

Conclusion: no
time to spare

Copyright © 2025 Reuters. No reproduction or distribution is permitted.

Energy in 2026: a motor for growth



Access to energy has a major influence on the economic growth of a nation, as evidenced from the wealth of North America, the Middle East and other fuel-producing regions. In 2026, this access is becoming more critical than ever, for two reasons.

The first is that economic growth in advanced economies is increasingly being linked to the development of artificial intelligence, which is adding to energy demand at a time when infrastructure is already stretched through the electrification of sectors such as transport and heating.

In the United States, utilities face large-load commitments exceeding 160 gigawatts of power, or up to 22% of the nation's peak load in 2024, according to the analyst firm Wood Mackenzie. Grid operator PJM only has half the generation it needs to serve its future commitments, the analyst firm said.¹

The other factor behind energy's rising importance is an increase in geopolitical tensions affecting global trade. Such tensions have always existed but have come to the fore in recent years due to events such as the Ukraine conflict, which has forced Europe to reduce Russian fuel imports.

In December 2025, the European Union agreed to phase out Russian gas imports altogether by late 2027, highlighting the need for a rapid buildup of new energy infrastructure to replace the supplies lost from Russia.²

In theory, this paints a rosy picture for energy infrastructure investors, with the International Energy Agency (IEA) predicting capital flows into the sector could have risen by 2% to \$3.3 trillion globally during 2025.³

But in practice there are issues with financing energy sector growth: in 2024, the consulting firm Deloitte put the global funding shortfall facing grid infrastructure alone at up to \$14.3 trillion by 2050.⁴

With financing delays and shortfalls threatening to derail economic growth and destabilize the global economy, there is a clear need for all stakeholders to help improve capital flows into energy. And the insurance industry, it turns out, could play a vital role in making that happen.

The issues of financing energy infrastructure



Capital flows into energy markets are susceptible to a range of risks. Infrastructure buildouts, for instance, can involve credit risks as large upfront investments are threatened by planning issues, permitting problems, construction delays and cost overruns.

Electricity generation and storage projects also face grid interconnection and offtake risks that can jeopardize revenues. Novel technologies may not work as expected. Mergers, acquisitions and project transfers may not go as planned. Projects can fall foul of environmental or other regulations.

Insuring against these and other risks can give financiers and lenders the reassurance to invest at the scale needed to meet the growth in global demand for energy.

And insurance is not just important for generation assets, but also for all associated infrastructure and services, from transmission equipment to transport electrification facilities.

Insurers can help assure energy technology and infrastructure investments at all stages of a project lifecycle, from scoping and raising capital to operations and decommissioning.

The impact of insurance can be considerable. One insurance-backed initiative helped the International Finance Corporation raise an extra \$2 billion of lending to low- and middle-income countries in 2020.⁵

But to deliver the greatest value, it helps for brokers and insurers to be involved early on, according to Debbie Durkan, Head of Global Distribution, Energy Transition, at AXA's XL specialty and property and casualty arm.

"The sooner we can be brought in during that due diligence process, the more we can support clients by looking at where there are additional risk financing vehicles that we can support or where there's risk engineering help that we can provide," she says.

Giving investors a stable outlook



Early engagement and collaboration are particularly important for energy projects because the resulting infrastructure can be highly visible, long-lived and controversial.

Wind farms, electricity pylons and nuclear power plants all have supporters and critics, while energy security and utility bills are politically charged topics in most major markets. This can put energy projects at risk from changing regulations and trends in permitting, potentially affecting revenues.

Political risk is often viewed as an issue in low- and middle-income countries, where social instability and regime change can endanger infrastructure investment.

But regulatory and sovereign uncertainty can be a problem in mature markets, as has been demonstrated recently with attacks on energy infrastructure in the Russia-Ukraine conflict, the halting of renewable energy projects in the U.S.⁶ and delays to offshore wind schemes in Taiwan.⁷

Insurers can help investors identify potential uncertainties with energy sector risk consulting services that include an assessment of third-party and environmental liability exposures, among others.⁸

Further protection can be obtained through political risk, credit and bond insurance, which helps investors secure assets and protect payment streams and dividend flows.

Factoring credit insurance into financing packages at the outset allows financiers to channel much greater capital flows into the energy market, says Rafael Docavo-Malvezzi, Global Chief Underwriting Officer for Political Risk, Credit and Bond at AXA XL.

"A lot of banks are using credit insurance as an integral part of their decision making," he says. "They think, if we can get insurance then instead of doing a \$200 million ticket, we can do \$300 million because we have the backing of these insurance institutions."

Making sure there is a return on investment



Achieving the right conditions for a final investment decision is only part of the story. Investors will not contemplate a market or technology investment unless it can offer a reliable and sustainable return on investment.

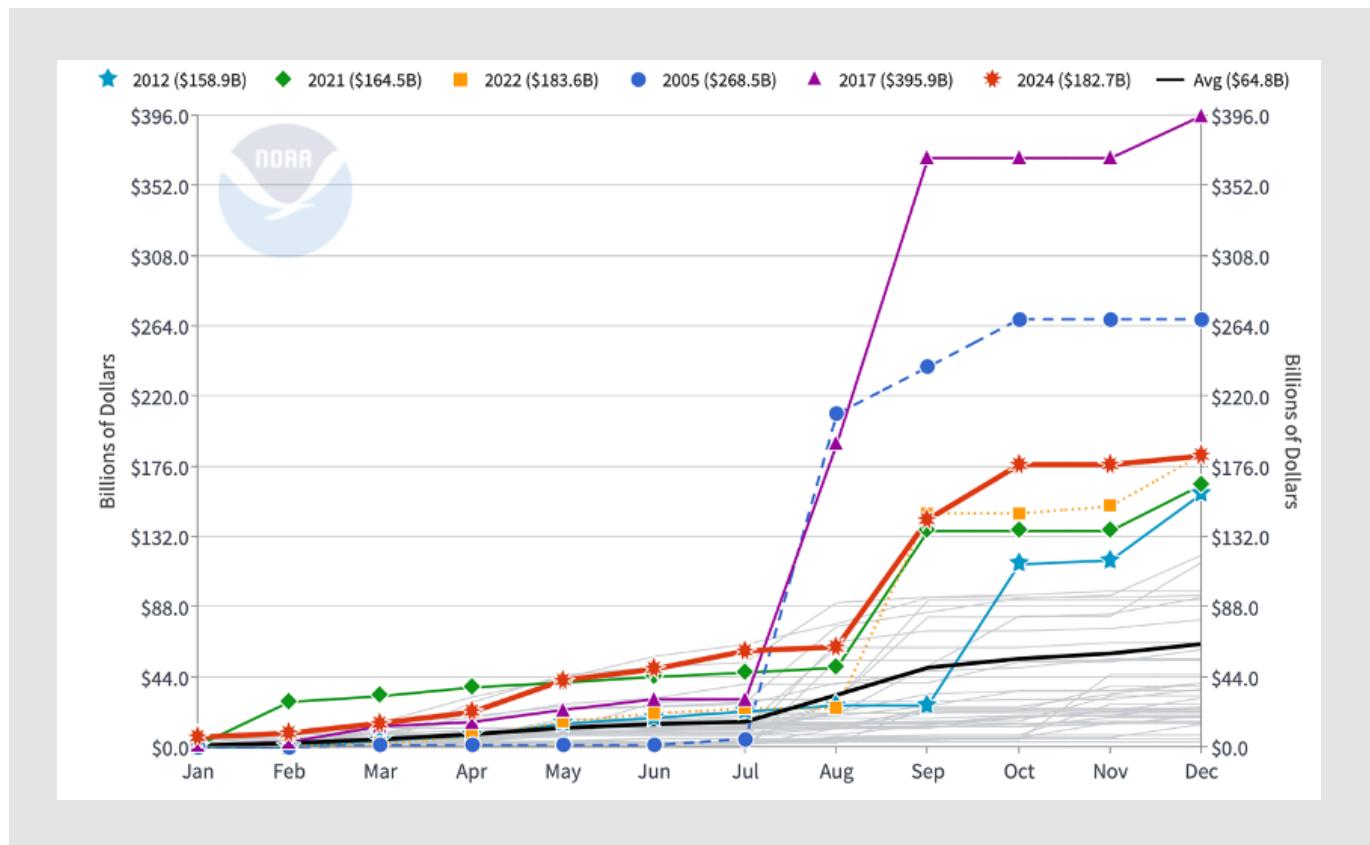
In energy, this means achieving promised returns over the lifetime of a project or technology. While this is relatively straightforward in the case of some mature technologies and stable markets, there may be risks attached to novel energy infrastructure assets such as advanced nuclear plants.

Even formerly safe bets could be affected by emerging risks in areas such as cybersecurity and climate, with rising atmospheric carbon levels increasing natural catastrophe threats.⁹

Insurers have long protected infrastructure operations through property and casualty insurance. Increasingly, such products are being complemented with offerings such as cybersecurity insurance, technology performance guarantees and parametric solutions. These define coverage linked to a parameter, such as a climate index, that can be monitored in real time and allows payouts in shorter timeframes.

U.S. natural catastrophe losses have been mounting in recent years

Event cost of billion-dollar natural disasters in the United States, from 1980 to 2024.



Source: Natural Centers for Environmental Information.¹⁰

Such products can help financiers cope with evolving energy risks, says Katherine Gerber, Head of Energy and Energy Transition, Americas, at AXA XL. With natural catastrophe losses on the rise,¹¹ "parametrics are not going away," she says. "They'll become more and more important."

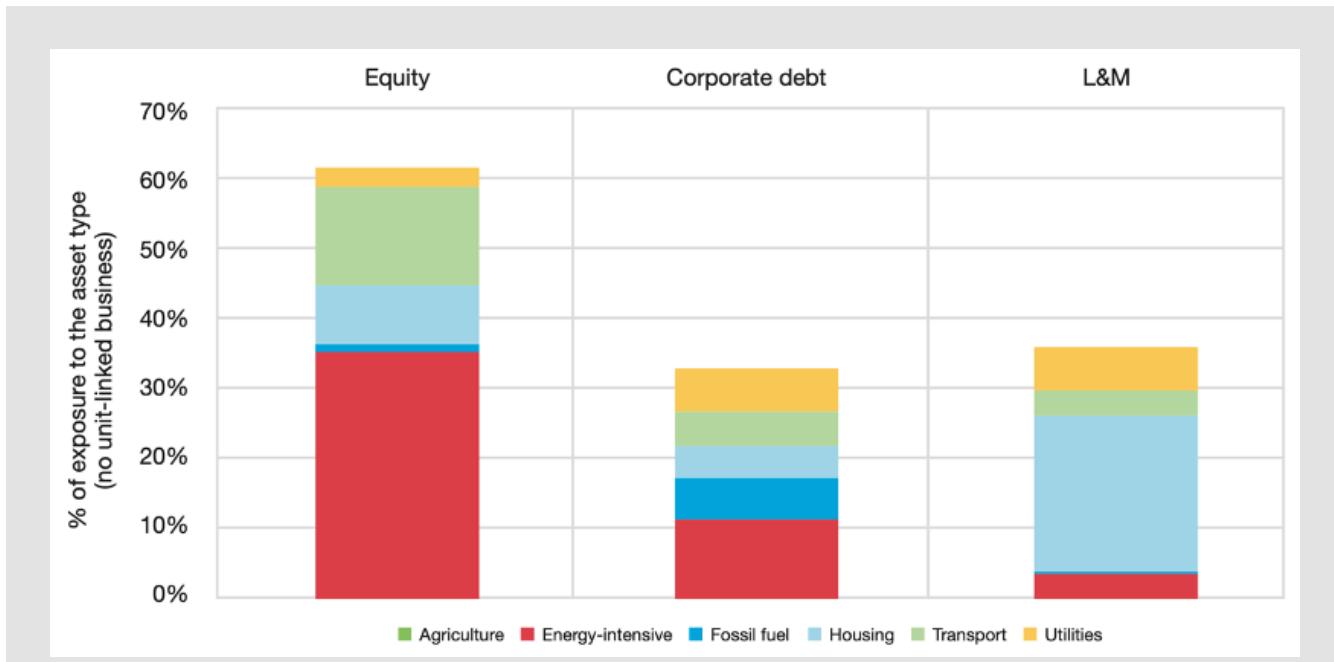
Insurers are continuing to develop products to meet the evolving needs of the market, Gerber adds. "Being creative as an insurer is going to be a key differentiator as we move forward," she says.

Skin in the game: from finance to captives



The insurance sector is a major investor in energy infrastructure

Share of insurance industry assets held in climate-relevant sectors.



Source: International Association of Insurance Supervisors.¹³ L&M = loans and mortgages.

Insurers also foster energy sector growth by insuring commercial transactions such as mergers and acquisitions, divestitures, spinoffs and private equity investments. The industry provides cover for issues including contract disputes, employee retention, IT integration and post-closing tax treatment.

More ingeniously, insurers can deliver wider and deeper assurance for energy sector investments through alternative risk solutions, which provide bespoke, non-traditional insurance and reinsurance structures tailored to specific industries and risks.

One alternative risk mechanism is the use of captives. In this model, an energy company establishes its own in-house insurance unit to retain a portion or all of its risks. Captives

typically collaborate with established insurance carriers for program development, risk transfer capacity, policy issuance and claims management, among other services.

Austin Su, Head of Structured Risk Solutions, Americas, at AXA XL, says "Utilizing a captive offers an energy company two benefits. First, it enables access to coverage for risks that are otherwise not available through the traditional insurance market. Second, it allows for more efficient risk retention financing, optimizing the company's overall risk management strategy.

Conclusion: no time to spare

A full consideration of the insurance sector's capabilities and influence shows it is well positioned to support an increase of capital flows into the energy sector.

Naturally, though, the insurance industry cannot drive energy investment volumes alone. Nor is it equipped to take on types of risk more appropriate to lenders and equity holders.

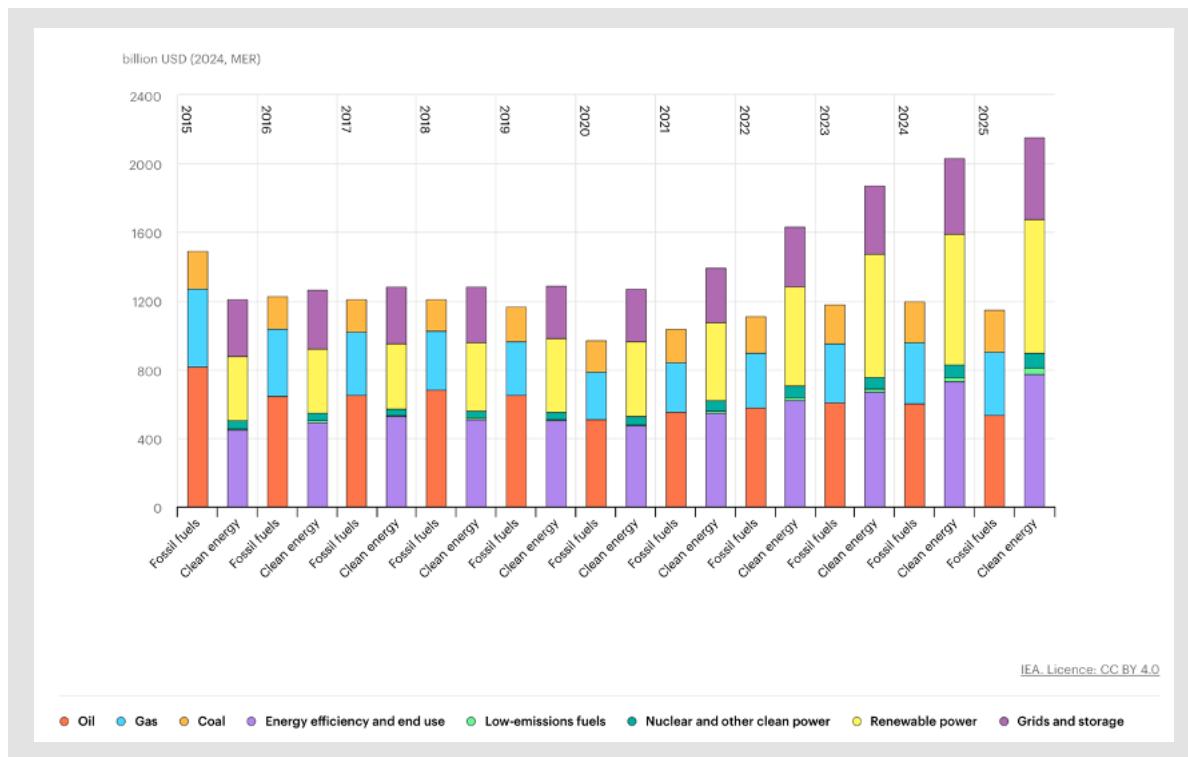
"The challenge here is unlocking a conversation around the value of insurance, beyond 'I pay a premium, I receive a claim',"

says Vicky Roberts-Mills, Global Head of Energy Transition at AXA XL.

The need to unlock these conversations is urgent. While significant amounts have been committed to the energy sector, "open questions about the economic and trade outlook means that some investors are adopting a wait-and-see approach to new project approvals," says the IEA.¹⁴

Energy sector investments are on the rise... but more is needed

Grid investment in clean energy and fossil fuels, 2015 to 2025.



Source: IEA¹⁵

At a time when economic leadership tracks developments in AI and electrification, a wait-and-see attitude towards energy infrastructure buildouts could significantly imperil the prospects for growth in the global economy.

For this reason alone, investors and lenders should find common cause with insurers in seeking the lowest-risk pathways for financing energy at scale.

From the insurance side, "the value is around enabling financing, enabling research and design, enabling protection of portfolios," says Roberts-Mills. "I can't see another industry that can do that, with a set of skills in terms of the ability to identify risk, quantify risk and price risk."

Disclaimer

The information contained herein is intended for informational purposes only. Insurance coverage in any particular case will depend upon the type of policy in effect, the terms, conditions and exclusions in any such policy, and the facts of each unique situation.

The report presented here is researched and written by Reuters Events™. The report reflects the viewpoints of the authors and are not necessarily the views of nor are described risks necessarily underwritten by AXA SA or its affiliates.

Clicking on the link button of other providers opens external websites. Since AXA SA and its affiliates have no influence on the design and content of the linked pages, including sub-pages, it cannot assume any guarantee or liability for the information presented on these pages.

In particular, AXA SA and its affiliates are not obliged to periodically check the content of third-party offers for illegality or criminal liability.

Any party who chooses to rely in any way on the contents of this document does so at their own risk. The information has been established on the basis of data, projections, forecasts, anticipations and hypotheses which are subjective.

This analysis and conclusions are the expression of an opinion, based on available data at a specific date.

AXA SA and its affiliates disclaim any and all liability relating to these scenarios' description and can modify these scenarios according to market evolutions and taking into account that regulations in force may be subject to change without notice.

AXA SA and its affiliates expressly disclaim any responsibility for (i) the accuracy or completeness of third-party data, (ii) the accuracy or completeness of the models, assumptions, forecasts or estimates used in deriving the analyses, (iii) any errors or omissions in computing or disseminating the analyses or (iv) any uses to which the analyses are put.

This summary does not constitute an offer, solicitation or advertisement in any jurisdiction, nor is it intended as a description of any products or services of AXA SA or its affiliates.

AXA XL is a division of AXA Group providing products and services through three business groups: AXA XL Insurance, AXA XL Reinsurance and AXA XL Risk Consulting.

In the U.S., the AXA XL insurance companies are AXA XL Insurance Company Americas, Greenwich Insurance Company, Indian Harbor Insurance Company, XL Insurance America, Inc., XL Specialty Insurance Company and AXA XL E&S Insurance Company.

In Canada, insurance coverages are underwritten by XL Specialty Insurance Company - Canadian Branch. In Bermuda, the insurance company is XL Bermuda Ltd. Coverages may also be underwritten by Lloyd's Syndicate #2003. Coverages underwritten by Lloyd's Syndicate #2003 are placed on behalf of the member of Syndicate #2003 by Catlin Canada Inc. Lloyd's ratings are independent of AXA Group.

Information accurate as of January 2026. The AXA, AXA XL, AXA XL Art & Lifestyle, AXA XL Insurance, AXA XL Reinsurance and AXA XL Risk Consulting trademarks and logos are registered trademarks of AXA SA. © 2026

References

¹ Wood Mackenzie press release, October 27, 2025: US utility large load commitments reach 160 GW amid unprecedented PJM demand surge. Available at <https://www.woodmac.com/press-releases/us-utility-large-load-commitments-reach-160-gw-amid-unprecedented-pjm-demand-surge/>

² Philip Blenkinsop, Reuters, December 3, 2025: EU agrees on phasing out Russian gas imports by late 2027. Available at <https://www.reuters.com/business/energy/europe-reaches-deal-phasing-out-russian-gas-imports-by-2027-2025-12-03/>

³ IEA, World Energy Investment 2025: Executive summary. Available at <https://www.iea.org/reports/world-energy-investment-2025/executive-summary>

⁴ Stanley Porter, Jim Thomson, Christian Grant, Craig Rizzo, Kate Hardin and Jaya Nagdeo, Deloitte, May 13, 2024: Expanding and modernizing the power grid for a clean energy transition. Available at <https://www.deloitte.com/us/en/insights/industry/power-and-utilities/grid-modernization-and-expansion-critical-for-clean-energy-future.html>

⁵ Thomas Ng, AXA XL, November 1, 2021: Credit insurance: Unlocking greater financing in emerging markets. Available at <https://axaxl.com/fast-fast-forward/articles/credit-insurance-unlocking-greater-financing-in-emerging-markets>

⁶ Nichola Groom, Reuters, December 10, 2025: Wind and solar power frozen out of Trump permitting push. Available at <https://www.reuters.com/sustainability/climate-energy/wind-solar-power-frozen-out-trump-permitting-push-2025-12-10/>

⁷ Edward Peters, 4C Offshore, November 11, 2025: Delays in Asia cast cloudy skies over wind developer. Available at <https://www.4coffshore.com/news/delays-in-asia-cast-cloudy-skies-over-wind-developer-nid32120.html>

⁸ AXA XL, 2025: Risk Consulting for the Energy Sector. Available at <https://axaxl.com/insurance/products/risk-consulting-for-the-energy-sector>

⁹ National Aeronautics and Space Administration, October 23, 2024: Extreme Weather and Climate Change. Available at <https://science.nasa.gov/climate-change/extreme-weather/>

¹⁰ National Centers for Environmental Information, January 10, 2025: Billion-Dollar Weather and Climate Disasters. Available at <https://www.ncei.noaa.gov/access/billions/>

¹¹ Ibid.

¹² International Association of Insurance Supervisors, December 2025: Global Insurance Market Report. Available at <https://www.iais.org/uploads/2025/12/Global-Insurance-Market-Report-2025.pdf>

¹³ International Association of Insurance Supervisors, 2025. <https://www.iais.org/uploads/2025/12/Global-Insurance-Market-Report-2025.pdf>

¹⁴ IEA, World Energy Investment 2025. <https://www.iea.org/reports/world-energy-investment-2025/executive-summary>

¹⁵ Ibid.