# Global investment in energy transition technologies hits $2.1 trillion in 2024



Global investment in energy transition technologies reached a historic peak of $2.1 trillion in 2024, reflecting an 11% increase from the previous year, according to a report from BloombergNEF. The surge in funding is primarily attributed to advancements in electric vehicles (EVs), renewable energy sources, and enhanced grid infrastructure. However, experts indicate that this level of investment is significantly inadequate to meet global climate goals.

As nations intensify their focus on low-carbon energy solutions to combat climate change and fulfil commitments under the Paris Agreement, experts warn that current spending trends are insufficient. BloombergNEF's Energy Transition Investment Trends report suggests that to achieve net-zero emissions by 2050, global annual investment must triple to $5.6 trillion between 2025 and 2030. This stark discrepancy underscores a pressing need for greater financial commitment and expedited action.

The energy sector is critical in mitigating climate change, accounting for approximately 75% of global greenhouse gas emissions. With global temperatures rising, transitioning to clean energy sources has become increasingly urgent for governments aiming to limit the rise in temperature to below 2°C, as stipulated by the Paris Agreement.

To facilitate this transition, an organised phase-out of fossil fuels and the elimination of inefficient fossil fuel subsidies are deemed essential. Continued investment in sustainable technologies is required, but currently, funding remains at merely 37% of the projected annual need of $5.6 trillion from 2025 to 2030.

In terms of sector performance, the electrified transport sector emerged as the leading area of investment in 2024, attracting $757 billion. This figure encompasses funding for electric cars, commercial fleets, public charging networks, and hydrogen fuel cell vehicles. Renewable energy investments were also robust, with global funding reaching $728 billion in wind, solar, biofuels, and other green power projects. Additionally, $390 billion was earmarked for upgrading power grid infrastructure, while investments in nuclear energy remained static at $34.2 billion.

Conversely, emerging technologies—such as electrified heat, hydrogen, carbon capture and storage, and clean shipping—saw a notable decline, garnering only $155 billion, a 23% drop compared to the previous year. Challenges in affordability, technology maturity, and commercial scalability continue to hinder investments in these sectors.

Bloomberg classified investments into "mature" and "emerging" technologies. Mature technologies, including renewables and energy storage, attracted $1.93 trillion, comprising the majority of global investments in energy transition. Meanwhile, emerging sectors accounted for just 7% of the total investment, securing $154 billion.

In 2024, China solidified its position as the top global market for energy transition investment, contributing $818 billion—a 20% increase from the previous year. This performance represented two-thirds of the worldwide increase in investments, with robust growth noted across renewables, energy storage, nuclear, EVs, and power grids. China's energy investment now constitutes 4.5% of its GDP, far surpassing contributions from other major economies, including the US, which invested $338 billion, and Germany, which contributed $109 billion.

Other countries such as India and Canada also made significant strides, with investments increasing by 13% and 19%, respectively.

Looking ahead, the outlook for clean energy spending appears promising. The report projects that between 2031 and 2035, annual investments could reach $7.6 trillion—3.6 times the levels recorded in 2024. This would mark a 37% increase compared to expected spending from 2025 to 2030. As demand for clean mobility continues to rise, particularly in the electrified transport sector, funding is anticipated to accelerate further, supporting the transition to a low-carbon future.

However, fluctuations in political leadership may affect the trajectory of clean energy investments, particularly with the potential influence of upcoming policy shifts linked to administrative changes in key nations.

Source: [Noah Wire Services](https://www.noahwire.com)

## References

* <https://about.bnef.com/blog/global-investment-in-the-energy-transition-exceeded-2-trillion-for-the-first-time-in-2024-according-to-bloombergnef-report/> - This URL supports the claim that global investment in energy transition technologies reached $2.1 trillion in 2024, driven by electrified transport, renewable energy, and power grids. It also highlights the need for increased investment to meet global climate goals.
* <https://taiyangnews.info/business/bloombergnef-energy-transition-investments-trends-2025-report> - This URL corroborates the report from BloombergNEF regarding the record investment of $2.1 trillion in energy transition technologies in 2024. It emphasizes the dominance of electrified transport, renewable energy, and power grids in these investments.
* <https://www.ipcc.ch/srccl/chapter/summary-for-policymakers/> - Although not directly mentioned in the search results, this IPCC report generally supports the urgency of transitioning to clean energy to mitigate climate change, which aligns with the article's emphasis on the energy sector's role in reducing greenhouse gas emissions.
* <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement> - This URL provides information on the Paris Agreement, which is referenced in the article as a framework for achieving net-zero emissions by 2050. It underscores the importance of meeting climate commitments through increased investment in low-carbon technologies.
* <https://www.iea.org/reports/global-energy-review-2024/> - Although not directly mentioned in the search results, this IEA report typically discusses global energy trends and the need for transitioning to clean energy sources, which aligns with the article's focus on energy transition investments.