

# Climate Week NYC: Navigating a Multi-Speed Transition

## A BNEF Briefing Note for Climate Week 2025

September 18, 2025

### Critical insights ahead of Climate Week NYC 2025

*This year's Climate Week takes place at a moment when the energy transition is branching into a multi-speed race, with some countries pulling ahead of others, and some clean energy technologies scaling up while others falter.*

*BNEF will be present at Climate Week NYC 2025, which runs September 21-28, participating in a range of events and hosting some of our own.*

*To help attendees prepare for the week, this briefing note summarizes our latest analysis and views on climate and energy transition issues that we expect to be in focus, and provides key data points to support discussions during the week.*

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### Clean energy investment continues to rise, but not everywhere

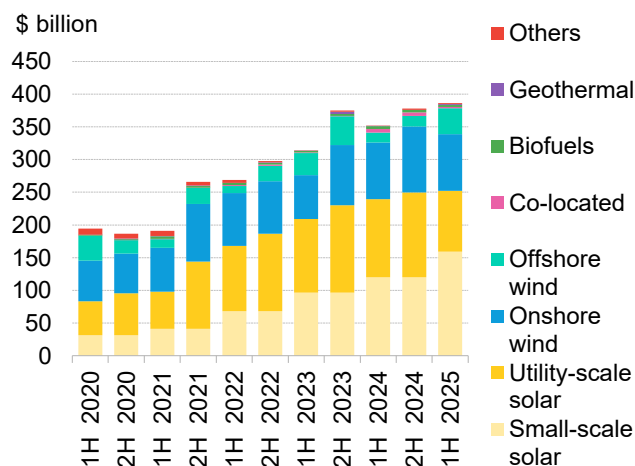
Global renewable energy investment has risen to record-breaking levels in the first half of 2025, according to BNEF's *Renewable Energy Investment Tracker* ([press release](#) | [full report](#)). Solar, wind and other renewable energy projects attracted a total of \$386 billion in new commitments in the period – up 10% from the same period last year to mark the highest half-year on record. These findings underscore the resilience of the clean energy sector in the face of policy and trade uncertainty, and the enduring competitiveness of wind and solar power.

Not all technologies and markets benefited equally from rising capital commitments. The bright spots

include offshore wind, which may be seeing an investment recovery, with more funding committed in 1H 2025 (\$39 billion) than in all of 2024. This pushed overall wind investment up by a quarter year-on-year, although onshore wind investment remained flat.

Solar investment grew 5% year-on-year, with strong expansion in small-scale solar offsetting a drop in utility-scale investment. Utility-scale projects are seeing a slowdown due to power price cannibalization, curtailment risks and policy changes in important markets, such as China, Spain, Brazil and Greece. However, the investment drop of 28% was more than compensated for by a growing small-scale solar market, especially in China.

**Figure 1: Global half-yearly renewable energy investment, by sector**



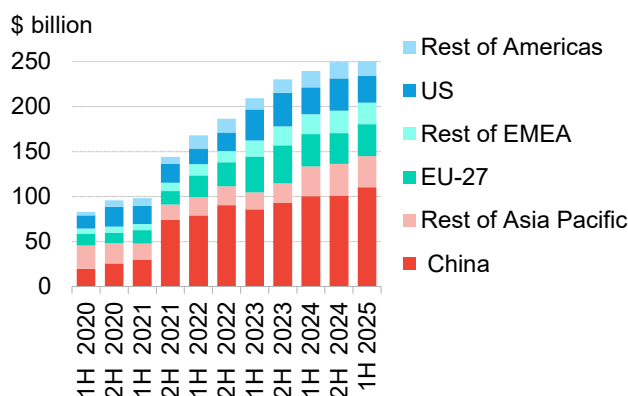
Source: BloombergNEF. Note: 'Others' includes biomass and waste, small hydro and marine.

Investment trends varied by market, too, and here the multi-speed transition appears in stark relief. The US saw a major drop in investment, down 36% half-on-half

as the new administration set about altering the policy and trade landscape. The EU, in contrast, is seeing strong growth, with a 63% surge in investment since 2H 2024. Developers and investors may be starting to reallocate capital out of the US and into Europe.

China remains the largest market for renewable energy investment, accounting for 44% of the global total.

**Figure 2: Global half-yearly renewable energy investment, by market**



Source: BloombergNEF. Note: EU-27 refers to the European Union, while EMEA is Europe, the Middle East and Africa.

BNEF's annual *Energy Transition Investment Trends* ([summary](#) | [full report](#)), which covers all sectors of the transition, showed robust growth last year across mature sectors of the transition: renewables, electric vehicles, energy storage and power grids. However, investment in emerging areas such as hydrogen, carbon capture and storage, and industry decarbonization fell in 2024, thanks to high costs, policy uncertainty and weak demand. This divergent picture is likely to continue in 2025.

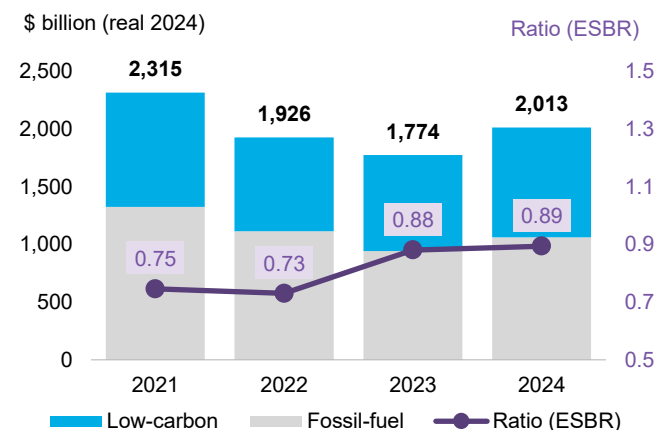
## Bank financing for low-carbon energy remains below that of fossil fuels

In the run-up to Climate Week, BNEF has released its Energy Supply Banking Ratios results for 2024 ([article](#) | [full report](#)), concluding that banks are still only providing \$0.89 in low-carbon energy supply financing for every \$1 in fossil-fuel financing, for a ratio of 0.89:1.

The ratio has barely increased since 2023, when it sat at 0.88:1, as growth in debt and equity raisings for fossil-fuel activities keeps pace with an increase in project and recourse financing for low-carbon activities.

This stagnation is despite a continued rise in clean energy *capital investment* in the real economy (discussed above), and contrasts with the finding that low-carbon energy is now eclipsing fossil fuels for real economy investment, at a ratio of 1.06:1. The bank financing ratio differs from the investment ratio because of differences in investments made by companies versus financing supported by banks, and by the time lag between raising and deploying capital.

**Figure 3: Global energy supply bank-facilitated financing, 2021-24**



Source: BloombergNEF, IJGlobal, RAN, Urgewald. Note: All 2021-23 numbers adjusted for inflation and reported in 2024 US dollars. ESBR refers to Energy Supply Banking Ratio.

On the investor side, BNEF's new metric for investment portfolios' climate alignment, the Energy Supply Fund-Enabled Capex Ratio ([abridged version](#) | [full report](#)), found that global fund managers are driving twice as much capital investment into fossil fuels as they are into low-carbon energy supply.

Commonly referenced climate scenarios indicate that an average ratio of 4:1 for low-carbon to fossil-fuel investment is needed by the end of this decade if the world is to keep global warming to 1.5C. This is far

higher than the investment, banking or fund ratios being observed in our work today.

## Global emissions can start to fall today, and net zero looks cheap compared to climate damages...

The 2025 *New Energy Outlook* ([summary](#) | [full report](#)), released in April, showed that an economics-led transition could deliver an immediate peak in energy-related emissions, making 2025 the first year of structural emissions decline on a global level. Other studies have also shown that China's emissions may have peaked, putting it on a downward trajectory alongside other major economies.

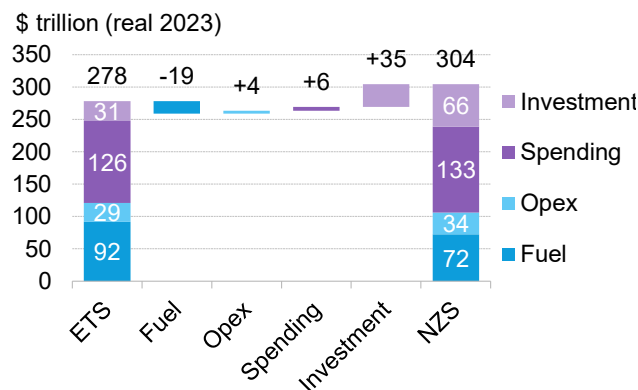
If indeed 2024 turns out to have been the global peak, then the race to zero has truly begun. However, our NEO base case, dubbed the Economic Transition Scenario, only sees a 22% reduction in global energy-related emissions by 2050, with growing energy demand offsetting the huge progress made by clean power and electrification.

In contrast, our Net Zero Scenario, which targets global net zero by 2050 in line with 1.75C global warming, requires much faster deployment of clean energy technologies – and much higher investment.

Yet a new BNEF report released in September concludes that the total energy system cost of reaching net zero is only 9% (\$26 trillion) higher than the base case to 2050, as the higher investment requirement is offset by reduced spending on fossil fuels. This equates to an incremental cost of only 0.7% of global GDP each year ([full report](#)).

Meanwhile, our colleagues at Bloomberg Intelligence estimate that US climate-related spending linked to disasters, insurance premiums, government grants and power outages was already equivalent to 3.2% of GDP in the year to April 2025 (see [report](#) on Bloomberg Terminal).

**Figure 4: Difference in energy system costs to 2050, ETS versus NZS**



Source: BloombergNEF. Note: The Net Zero Scenario (NZS) charts a pathway to net zero by 2050, limiting global warming to 1.75C. The Economic Transition Scenario (ETS) shows how the energy transition could unfold solely based on economic forces and technology tipping points without further policy action.

## ...but country targets are insufficient for a Paris-aligned trajectory

Few countries have submitted their third Nationally Determined Contribution, or NDC. Among major economies, Brazil and the UK stand out as having submitted NDCs that are even more ambitious than BNEF's NZS trajectory for those countries. The high end of Australia's new NDC, announced on September 18, is in line with our Net Zero Scenario, as is the EU's proposed 2040 target for a 90% reduction in emissions.

In contrast, Japan's declared 60% reduction goal for 2035 falls short of the NZS, as does Canada's 45-50% target.

At the time of writing, many important economies such as the EU, China, India, Indonesia and South Korea are yet to reveal their pledges for 2035. The table below shows the emissions goals they would have to set if they were to align with global net zero by mid-century (while acknowledging that not all countries are aiming for that goal). Climate Week, and the weeks leading up to COP30, will be a critical period for any new pledges to be submitted.

**Table 2: Selected markets' emissions targets compared to BNEF's NZS trajectory**

Market	Base year	Implied emissions change to 2035	
		NDC 3.0	BNEF Net Zero Scenario
UK	1990	-81%	-73%
Germany	1990	Pending	-78%
EU-27 *	1990	Pending	-70%
France	1990	Pending	-65%
Brazil	2005	-59% to -67%	-20%
Australia	2005	-62% to -70%	-71%
Canada	2005	-45% to -50%	-60%
US **	2005	-61% to -66%	-74%
China	2005	Pending	-43%
India	2005	Pending	+27%
Japan	2013	-60%	-73%
S. Korea	2018	Pending	-71%
Indonesia	2020	Pending	-35%
Vietnam	2020	Pending	-20%
More ambitious than NZS		In line with NZS	Less ambitious than NZS

Source: BloombergNEF, ClimateWatch, Nationally Determined Contributions (NDCs) from the United Nations Framework Convention on Climate Change. Note: Targets are grouped by base year and ambition level compared to BNEF's Net Zero Scenario. Applies parties' economy-wide, unconditional, greenhouse gas reduction targets for 2035. \*While the EU's 2035 target is not finalized, the bloc has proposed a 90% emissions reduction by 2040. A 2035 emissions target of 73% or more is needed to stay on track to the proposed 2040 goal, which is in line with our NZS. \*\*The US NDC was invalidated after President Donald Trump signed an executive order to exit the Paris Agreement. For full notes, please see New Energy Outlook 2025.

## Clean energy supply chains remain concentrated in China, despite shifting trade and tariffs landscape

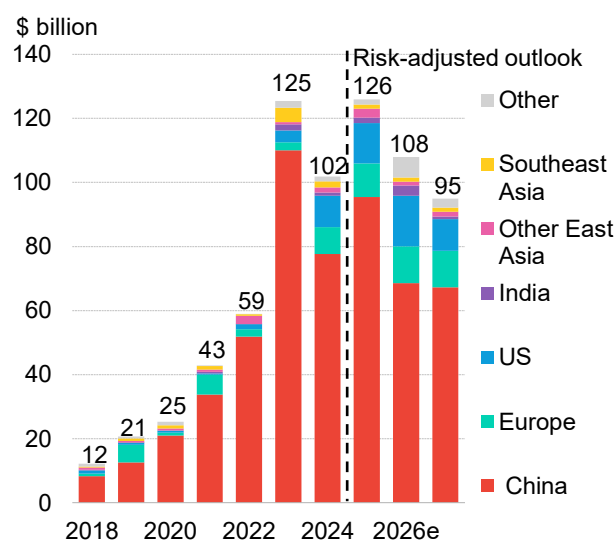
China continues to dominate global clean-tech equipment production, hosting 70% or more of the production capacity across every major segment tracked by BNEF except hydrogen electrolyzers. This concentration level continued to rise in 2024 across the battery supply chain and wind nacelles, according to

*Energy Transition Supply Chains 2025* ([press release](#) | [report](#)).

BNEF is tracking more than \$275 billion in clean-tech manufacturing subsidies through 2032, aimed at supporting supply chain buildout in countries outside of China. The largest funding pots are available in the US, EU and Japan. Many of these countries are raising trade barriers to protect domestic producers, most notably the US – but also Turkey, India, Brazil, Canada and the EU.

Despite these efforts, only 24% of new investment into clean-tech factories occurred outside of China in 2024, though we expect that share to rise to 36% by 2026 as policies begin to take effect.

**Figure 5: Clean-tech factory investment by geography**

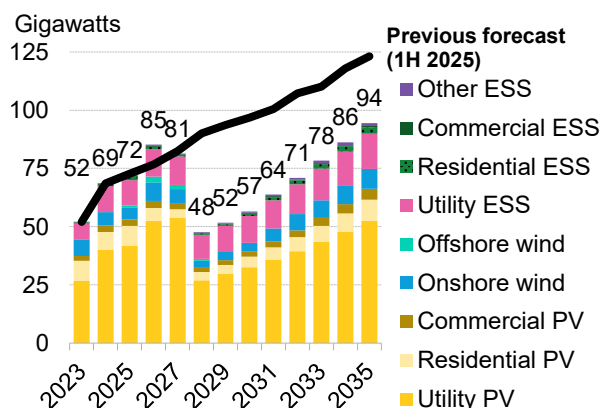


Source: BloombergNEF. Note: Includes factory investment across the manufacture of solar (polysilicon, wafers, cells and modules), batteries (separators, electrolytes, cathodes, anodes and cells), wind turbines (nacelles only), and hydrogen electrolyzer manufacturing (stack assembly only). For future years under the risk-adjusted view, timelines and likelihood of completion are risk-adjusted according to factory location, manufacturer experience, and geography in which the manufacturer is headquartered.

## US policy changes will slow clean energy growth, but won't stop it

With the passage of the One Big Beautiful Bill Act (OBBBA), we now expect that US solar, wind and energy storage build over 2025-2030 will total 395 gigawatts (GW) – a 23% reduction from our outlook prior to the passage of the budget bill. In our new base forecast, a rush to build before the end of 2027 is followed by a market slowdown in 2028, with installation rates only recovering to present levels in the early 2030s.

**Figure 6: US annual solar, wind and storage build forecast versus previous outlook**



Source: BloombergNEF. Note: ESS is energy storage system, PV is photovoltaic. Solar capacity is in direct current (DC).

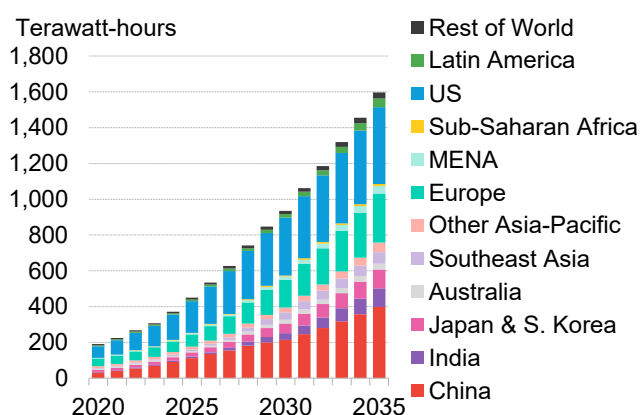
Our wind forecasts have been the most heavily reduced, with onshore wind build to 2030 halved since our last outlook. Solar is relatively resilient with a 23% cut, as tax credits are less critical to solar economics in the US, while energy storage sees a cut of just 7%. For more, see the [full report](#) or [free article](#).

The removal of key subsidy mechanisms reduces the supply of new clean power at a time when it is needed to help meet booming power demand, but also gives the clean energy sector a chance to demonstrate resilience. Total solar, wind and storage installations from 2025 to 2035 still total some 788GW in our new base case, underpinned by power demand growth and the underlying economics of renewables.

## Global data-center power demand will quadruple by 2035; not all of it will be clean

BNEF has released a number of reports this year focused on data-center energy demand, and we expect this to be one of the hottest topics at Climate Week. We project global power demand from data centers to quadruple in the decade to 2035, to reach 1,600 terawatt-hours in that year. This is similar in magnitude to India's power consumption today, and accounts for 4.5% of expected global power demand in 2035. This growth will sit alongside other major drivers of demand growth, including economic development, electrification of transport and uptake of air conditioning.

**Figure 7: Global data-center power demand, historical and forecast**

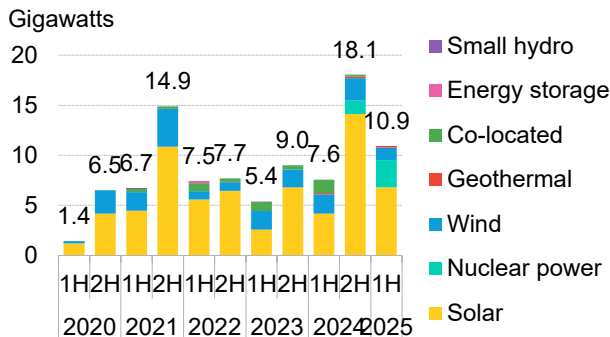


Source: BloombergNEF. Note: MENA is Middle East and North Africa.

This growth represents a significant opportunity for clean energy development. Google, Amazon, Microsoft and Meta were already the four largest corporate buyers of clean power globally in 2024, and the trends have continued this year, with solar, wind and a growing share of nuclear energy all winning business from data centers in the first half of 2025. This demand is an important factor underpinning our US renewables forecast, as we expect US data-center capacity to jump from 39GW in 2024 to 78GW by 2035.



**Figure 8: New Cloud Giant PPA purchases**



Source: BloombergNEF. Note: PPA is power purchase agreement.

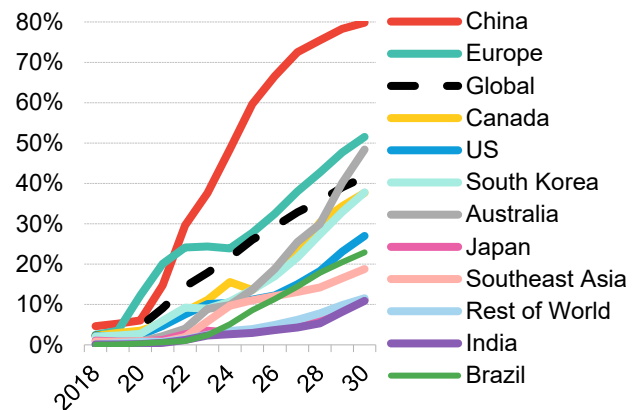
On the flip side, this growth is also stimulating demand for natural gas, gas turbines and engines, and related equipment, and risks delaying the closure of older, polluting power plants. Our power system modeling, turbine order backlogs and project announcements all show that demand for gas power is surging. Our gas team has estimated that the US data center project pipeline, if delivered, could boost natural gas demand by 6.8 billion cubic feet per day, equivalent to 8.4% of domestic gas consumption in 2024.

## EV sales keep setting new records, and commercial EVs are gaining traction

The electric vehicle outlook in the US has dimmed due to changing federal policy, but growth elsewhere remains strong. Our 2025 *Electric Vehicle Outlook* ([summary](#) | [full report](#)) projects that EVs will account for 26% of global passenger vehicle sales this year, and 42% by 2030. China and Europe remain the leaders in EV sales, but a lengthening list of other markets are joining the race. By 2030, the US is set to reach just 27% EV sales penetration – another manifestation of the multi-speed global transition.

Electrification of commercial vehicles is beginning to scale up, too. In advance of Climate Week, BNEF has released its 2025 *Zero-Emission Commercial Vehicles Factbook* ([report](#)) in partnership with Smart Freight Centre, to stimulate further progress on lowering barriers to adoption.

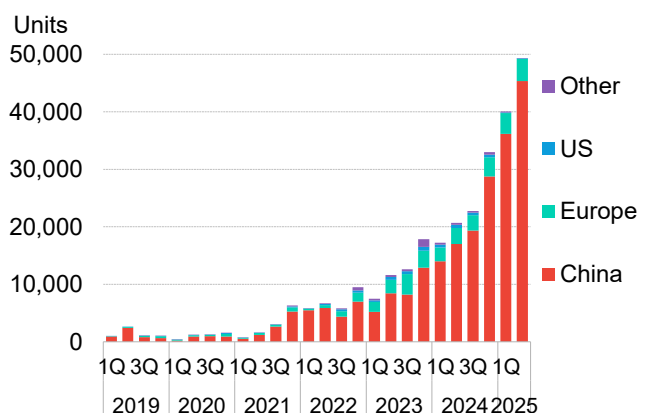
**Figure 9: EV share of new passenger-vehicle sales by market**



Source: BloombergNEF

In it, we find that zero-emission trucks are set to reach a global sales penetration of 4% this year, with sales in the first half of 2025 approaching 90,000 units and nearly equaling sales in the whole of 2024. While China leads with more than 90% of commercial EV sales today, ambitious policy (especially in Europe) and improving economics globally are set to drive adoption in the next few years. The Factbook also addresses key areas of uncertainty that currently hold back adoption, such as the residual value of batteries and vehicles, and predictability of charging patterns.

**Figure 30: Global sales of zero-emission medium- and heavy-duty trucks by region**



Source: BloombergNEF; see full list of sources in the *Zero-Emission Commercial Vehicles Factbook*. Note: Europe is the EU-27, the UK, Norway, Switzerland, Iceland and Liechtenstein.

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