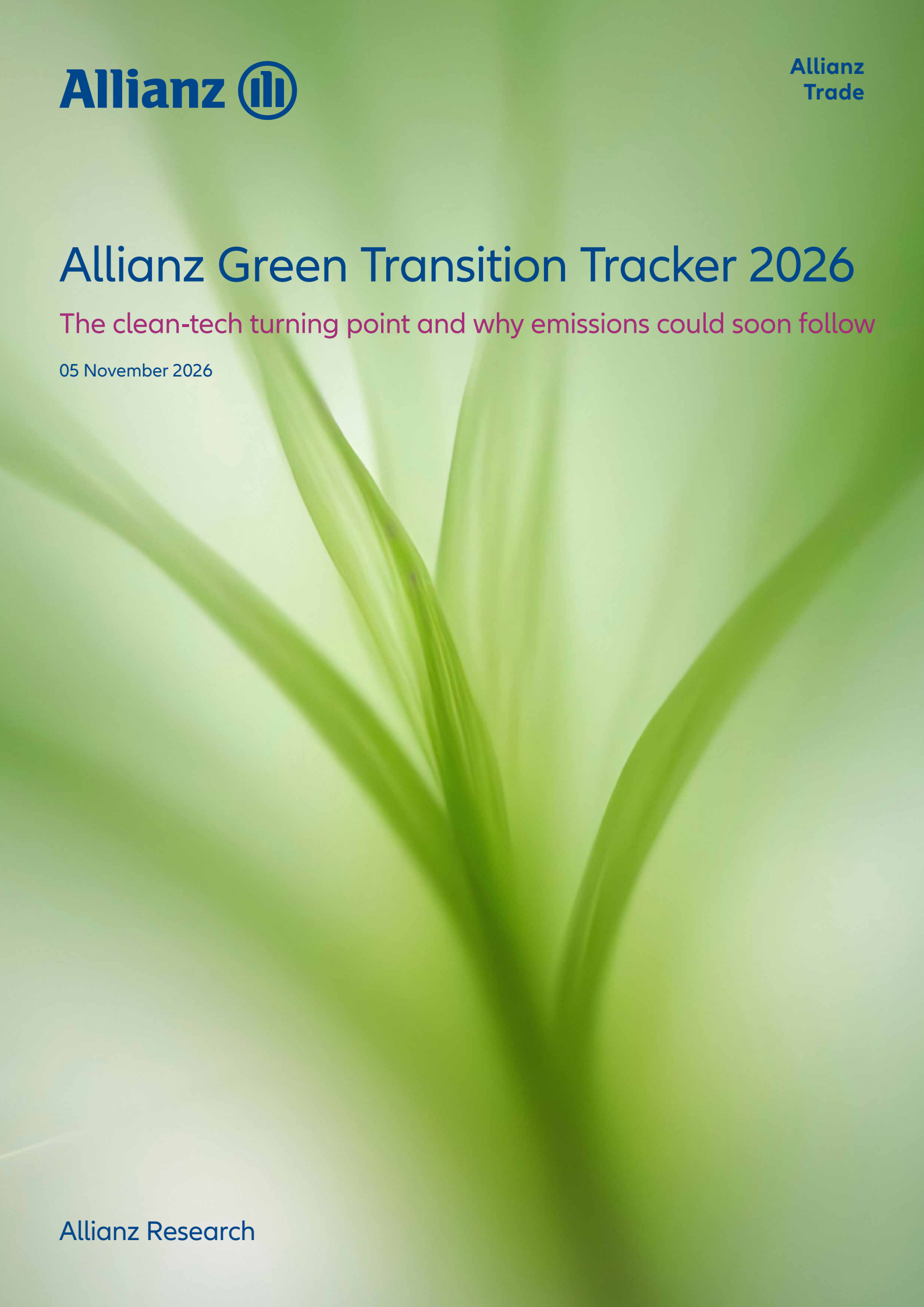
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Allianz Green Transition Tracker 2026

The clean-tech turning point and why emissions could soon follow

05 November 2026



Allianz Research

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Executive Summary



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- **Climate targets are slipping away, but the green transition is not.** The second edition of the Allianz Green Transition Tracker shows that global emissions continue to diverge from pathways aligned with the 2015 Paris Agreement goals, and limiting warming to 1.5°C appears increasingly out of reach. However, the gap between ambition and reality has further narrowed. Of the 65 countries assessed – responsible for 81% of global greenhouse-gas emissions – 56 have moved closer to their benchmarks. At the current pace, however, the world will not reach net-zero until 2064.

- **Clean technologies continue to advance despite political headwinds and weakening climate commitments.** In 2025, renewables ended coal's century-long lead as the world's largest source of electricity supply, accounting for 33.5% of global generation compared with coal's 33.2% share. Of all new power generation, 99% came from renewables. This helped slow global greenhouse-gas emissions growth to 0.7%, down from 1.5% in both 2023 and 2024. This year, global emissions are expected to stagnate, with fossil-fuel CO_2 emissions projected to decline by around 0.5%. Higher fossil-fuel prices and increasingly competitive clean technologies are supporting electrification, with the EV share of new car registrations rising from 18% to 22% between Q3 2025 and Q3 2026. However, rising electricity demand, grid bottlenecks and policy uncertainty could slow progress, while AI and data centers could increase global emissions by around 0.6% by 2030. Despite these headwinds, a global emissions peak before 2030 remains within reach if clean-energy expansion continues to outpace demand growth.

- **Progress is increasingly uneven across countries, with leaders pulling further ahead of laggards.** Since the first edition, Progress Scores, which measure the distance to net zero targets, have improved by an average of 2.0 points, but countries in the top half of the ranking have gained twice as much as those in the bottom half (2.6 versus 1.3 points). Energy efficiency has improved most, while territorial emissions per capita have deteriorated on average. This reflects the broader global trend: since 2015, energy-related emissions have increased by around 10%, compared with 35% growth in GDP. Economies are becoming less carbon-intensive, but rising energy demand continues to offset much of the progress.

- **The four biggest CO2 emitters show different developments: Europe leads but loses momentum, China and India show signs of a turning point, while the US stalls.** European Union members account for four of the ten countries showing strongest improvements in the Tracker. Yet, EU emissions fell by just 0.2% in 2025, compared with average annual reductions of 4% previously, leaving the region on course to reach net-zero-aligned benchmarks only by 2057. The US gained just 1.2 points and remains in the bottom half of the progress ranking, with a 2.2% jump in emissions – a second consecutive increase – driven by coal-fired generation that grew by 13% amid rising electricity demand. China gained 2.3 points as emissions growth slowed to virtually zero, supported by rapid electrification, with EVs accounting for more than half of new car sales. India recorded a 4.5-point improvement, the seventh-largest in the Tracker,

as renewable expansion, slower electricity demand growth and favorable weather helped reduce coal-fired generation by 2.9% and deliver the country's first emissions decline outside an economic contraction in 25 years. Colombia recorded the largest improvement (+16.5 points), driven by recovering hydropower generation, expanding solar capacity and declining energy intensity. Meanwhile, fossil-fuel-dependent economies in the Middle East remain near the bottom of the rankings, reflecting high per-capita emissions and continued reliance on hydrocarbons.

- **The next phase of the transition depends as much on grids and storage as on renewable capacity.** Global clean-energy investment is expected to rise by 6.5% to USD 2.2 trillion in 2026, despite a 3.6% decline (USD25bn) in spending on renewable generation. Investment in electricity grids and battery storage will soar by 21% and 36%, respectively, as countries seek to integrate renewables and meet rising electricity demand. Battery-storage additions have surged from 2 GWh in 2015 to more than 300 GWh in 2025 as installed costs dropped 91%.

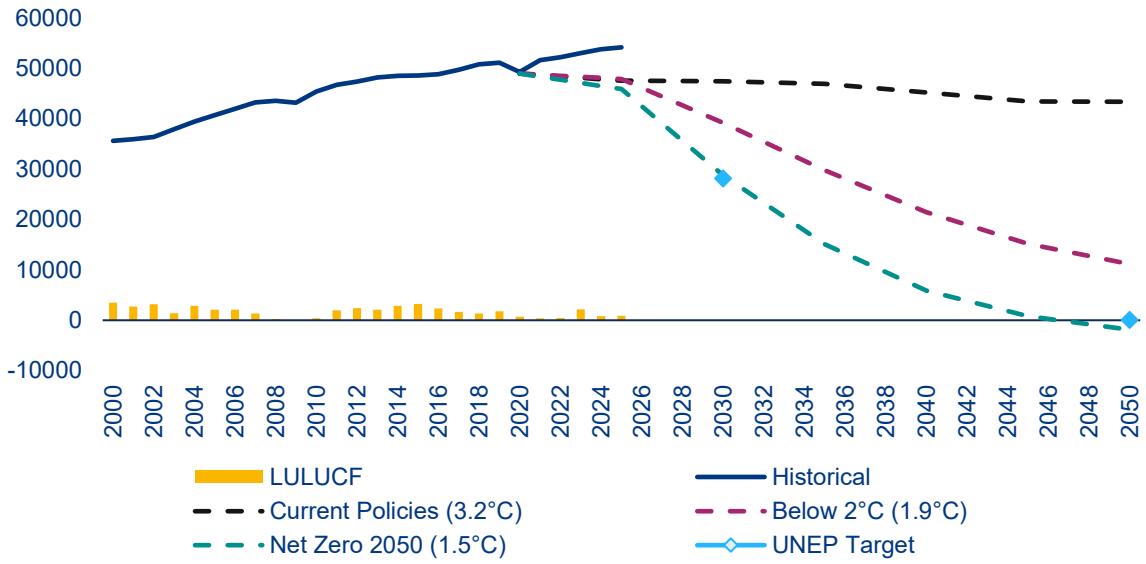
- **Carbon removal is essential, but deployment has to be sped up.** With a temporary overshoot of 1.5°C increasingly likely, removing CO_2 will be critical to offset residual emissions and eventually lower atmospheric concentrations. Yet the scale-up gap is enormous: ambitious pathways call for around 9 $GtCO_2$ of annual removals by 2050, compared with less than 4 Gt implied by current national commitments. While nature-based solutions currently dominate, novel carbon-capture technologies remain at an early stage and scaling them to a required level could cost USD0.5-1.4trn annually. Delaying emissions cuts by a decade could increase removal needs by more than 50% by 2100, reinforcing that avoiding emissions in the first place must remain the priority, with carbon removal complementing rather than substituting for rapid emissions reductions.



Global climate transition: A turning point in power, but not yet in emissions

The green transition is gaining momentum, but emissions have yet to peak. Global emissions increased by 0.7% in 2025, marking a slowdown from the annual growth rates of 1.5% in both 2023 and 2024, and 1.2% in 2022. While the trend is encouraging, emissions continue to rise, and the global trajectory is increasingly diverging from pathways aligned in 2015 under the Paris Agreement (Figure 1), with current trends pointing to warming of more than 3°C by the end of the century. The slowdown has primarily been driven by a 0.3% decline in power-sector emissions, while emissions from fuel production, transport and buildings continued to grow by more than 1.2%. This divergence reflects a structural shift in the global power mix (Figure 2). Whereas coal and gas dominated growth in electricity supply during the first two decades of this century, renewables emerged as the main driver of expansion, accounting for 99% of additional supply in 2025. This shift has led to a historic milestone as renewables became the world's largest source of electricity in 2025, unseating coal from a position it had held for more than a century.[1]

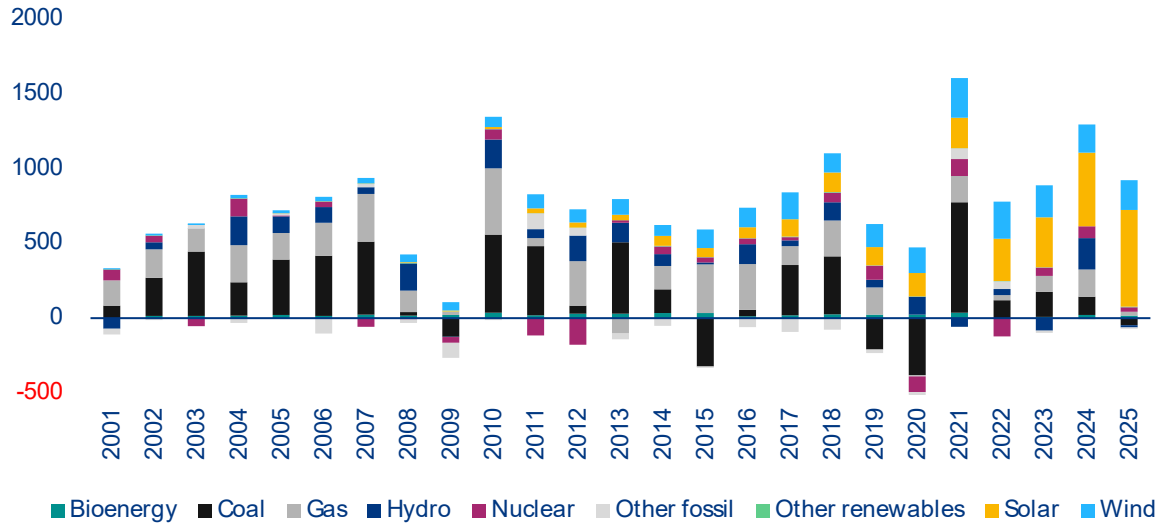
Figure 1: Historical emission & decarbonization pathways (MtCo2eq)



Sources: Allianz Research based on JRC EDGAR, NGFS and UNEP; NGFS climate scenarios represent a 67% probability of not exceeding the following global warming thresholds by 2100: Current Policies (3.2°C), Below 2°C Scenario (1.9°C), and Net Zero 2050 (1.5°C). LULUCF (land use, land-use change and forestry) emissions include those from deforestation, fires, forest land, organic soils and other sources.

1 Global Electricity Review 2026 (EMBER)

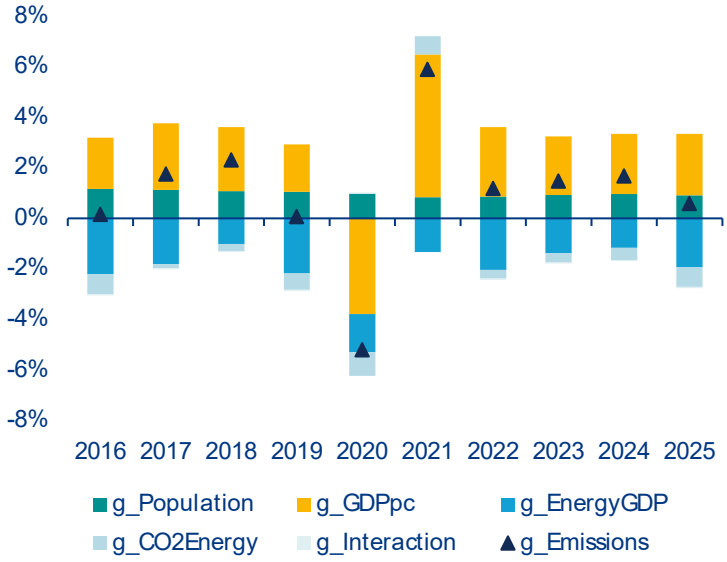
Figure 2: Global power supply growth per year by source (in TWh)



Sources: Allianz Research, EMBER

Emissions are increasingly decoupling from economic growth, but the trend remains incomplete. In 2025, energy-related emissions rose by just 0.6%, well below global GDP growth of around 3.4%. The Kaya decomposition, which breaks down emissions growth into its main drivers, shows that improvements in energy intensity (-1.9%) and the carbon intensity of energy (-0.8%) helped offset the upward pressure from rising GDP per capita and population growth over the last decade (Figure 3). These gains reflect both a more efficient use of energy to generate economic output and the ongoing shift towards low-carbon energy, particularly in power generation. The trend is also evident over the longer term, with energy-related emissions rising by around 10% since 2015, compared with 35% growth in GDP. However, these gains have not yet been sufficient to offset the upward pressure on emissions from rising incomes and population growth.

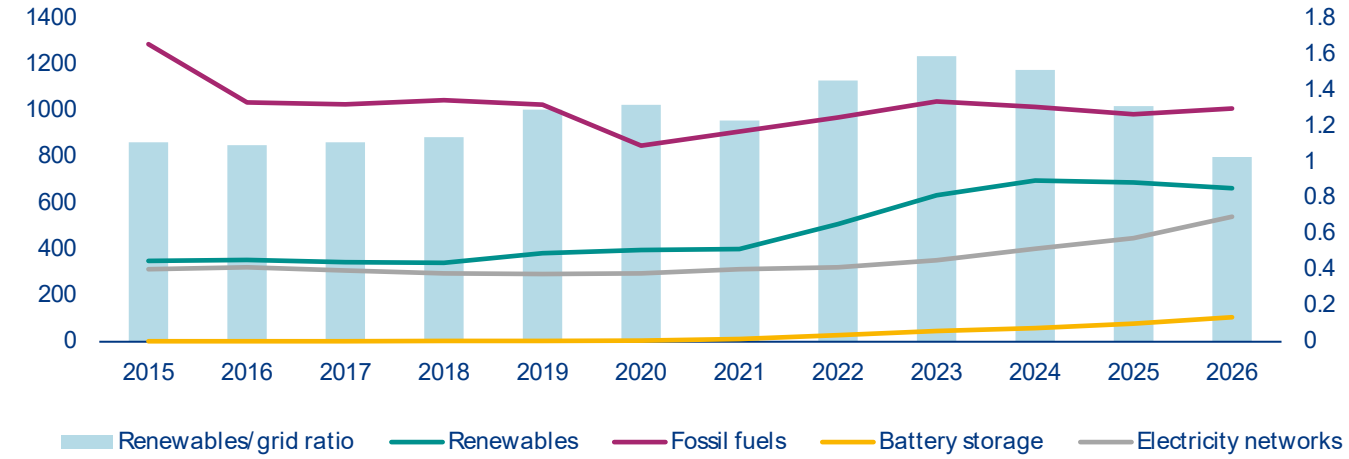
Figure 3: Kaya decomposition of global energy emissions growth (in %)



Sources: Allianz Research, JRC EDGAR, World Bank, Energy Institute

Clean energy investment continues to expand, but the composition of spending is shifting. Total clean energy investment is expected to grow by 6.5% in 2026, reaching USD 2.2trn. Yet the trend in renewables is beginning to diverge: after several years of strong growth following the COVID-19 pandemic, investment is projected to fall from USD 690bn in 2025 to USD 665bn in 2026 (Figure 4). This decline is largely attributable to China, while both advanced economies and emerging markets and developing economies (EMDEs) excluding China are expected to record modest increases of USD2-3bn. The moderation in renewable investment comes as many countries enter a consolidation phase, with the focus increasingly shifting from expanding generation capacity to ensuring that power systems can accommodate it. Surging electricity demand continues to support the case for additional clean power, while grid constraints and the growing need for system flexibility are driving investment in complementary infrastructure. Accordingly, investment in electricity networks and energy storage is expected to rise by 20.8% and 35.9%, respectively, in 2026. As a result, the ratio of renewable energy investment to grid investment has returned to around 1.0–1.1 in 2026, following several years of elevated levels since 2018.

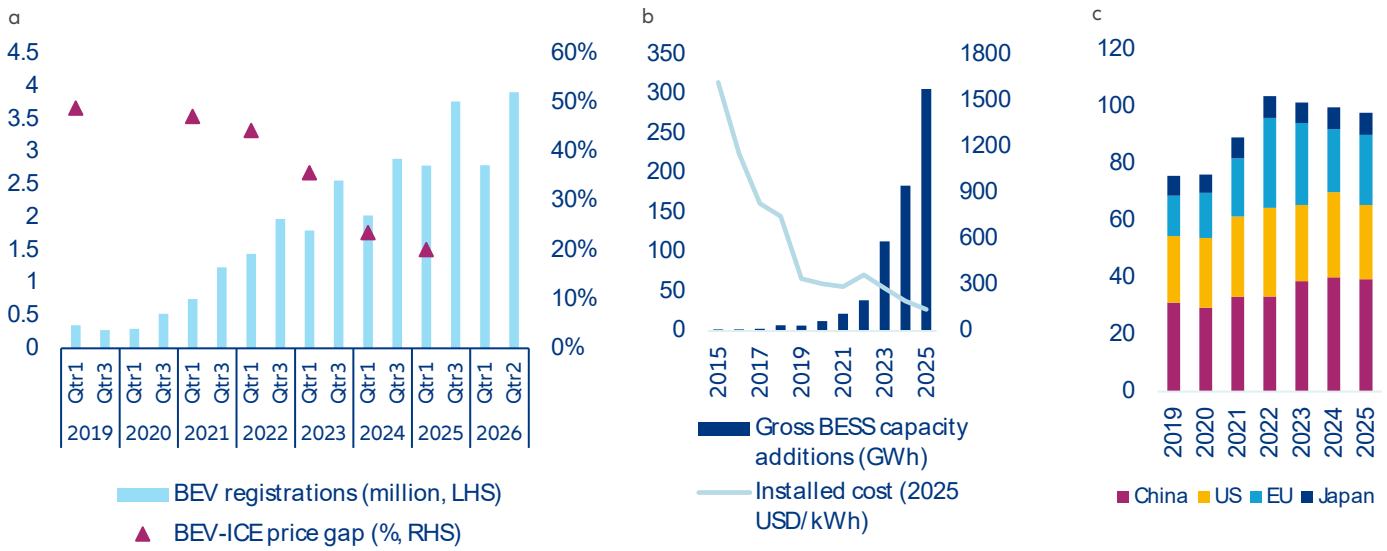
Figure 4: World transition investment trends (USD bn)



Sources: IEA, Allianz Research

Beyond the rapid expansion of renewables, progress across other clean technologies remains mixed, reflecting differences in cost trends and economic incentives. Electric vehicles and battery storage are benefiting from falling costs and growing demand. The share of battery-electric vehicles (BEVs) in new car registrations rose from around 2% in 2019 to 18% in Q4 2025, as the price gap with internal combustion engine vehicles narrowed from 49% to 20% (Figure 5a). Battery storage has followed a similar trajectory, with annual additions surging from around 2 GWh in 2015 to 307 GWh in 2025, while installed costs fell by 91% to about USD 140/kWh (Figure 5b). Heat pump deployment continues to face barriers from high upfront costs and electricity prices that remain relatively high compared with gas, weakening the economic incentive to switch from fossil-fuel heating. Globally, sales growth has lost momentum in recent years, although developments vary across markets. In Europe, sales returned to growth in 2025 after falling for two consecutive years, but remained below their 2022 peak (Figure 5c). The renewed energy price and security shock linked to disruptions in the Strait of Hormuz could reinforce the case for electrification, accelerating EV adoption and potentially reversing the recent stagnation in heat pump sales, as volatile fossil-fuel prices strengthen the appeal of alternatives to oil and gas.

Figure 5: Market growth of green technologies: a) Electric vehicles, b) Battery Storage and c) heat pumps



Sources: Allianz Research based on IEA, IRENA, EMBER, EHPA

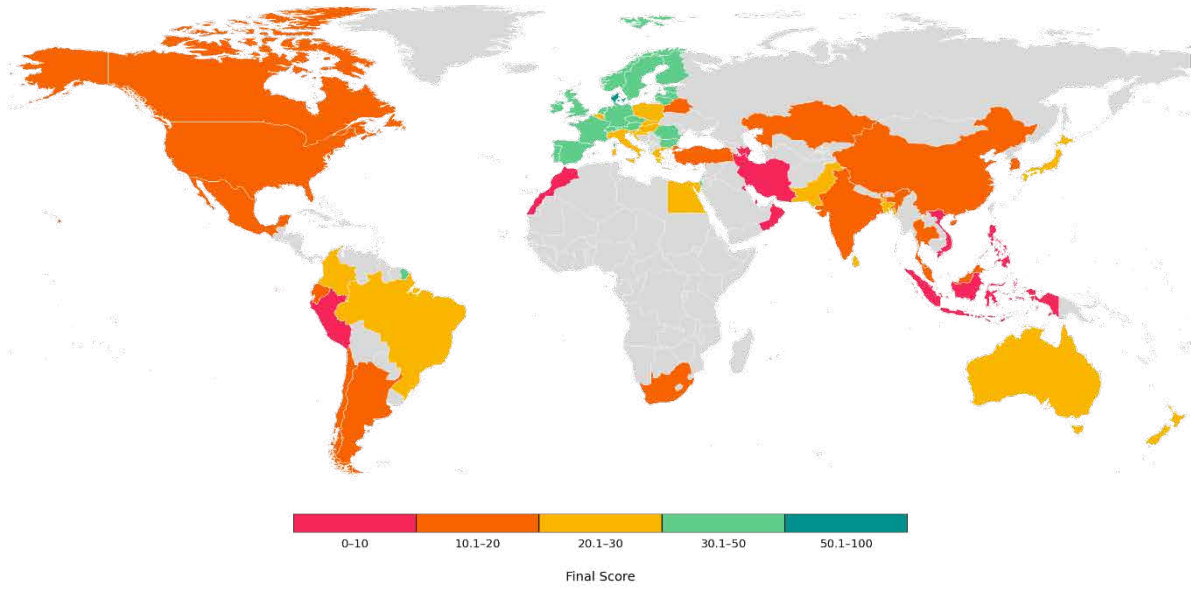
The Allianz Green Transition Tracker highlights country-level nuances behind the global shifts. The analysis, which covers 65[2] countries responsible for 80.8% of global GHG emissions, tracks transition developments by scoring each based on five key indicators: (1) carbon intensity of the economy, (2) energy intensity, (3) consumption-based emissions per capita, (4) territorial emissions per capita and (5) the share of low-carbon sources in the national power mix.[3] The individual indicators are then aggregated into two country-level scores: The Progress Score (Figure 6), which measures advances from the 2015 baseline toward net-zero benchmarks for 2050 and the Peer Score (Figure 7), which compares countries' current performance.

Global progress towards net zero continued since last year, but remains insufficient to meet Paris climate targets. The second edition of the Allianz Green Transition Tracker finds that 56 of the 65 countries assessed have moved closer to their net-zero benchmarks, with overall scores increasing by an average of 2 points. Among the five KPIs, energy intensity of the economy recorded the largest average improvement (+3.1 points), followed by consumption-based emissions per capita (+2.3 points). Carbon intensity of the economy and the share of low-carbon energy in the power mix each improved by 1.9 points on average, while territorial emissions per capita deteriorated. Despite this progress, countries remain off track to meet their 2050 targets. More than 30% of the time between the Paris Agreement and 2050 has already elapsed, yet only around a third of the countries have achieved a Progress Score above 30, most of them in Europe (Figure 6). At the current pace, countries would reach their net-zero benchmark levels only around 2064, underscoring the need to accelerate the transition.[4]

[2] Due to data availability this year´s Green Transition Tracker uses EMBER instead of IRENA power generation and capacity data. This has led to slight changes in last years scoring with four countries/regions being dropped due to a lack of data updating (UAE, Hong Kong, Saudi Arabia and Trinidad & Tobago)
[3] For a detailed description of the transition scoring methodology, see Appendix A2.
[4] For more information on individual country score changes see Appendix A1.

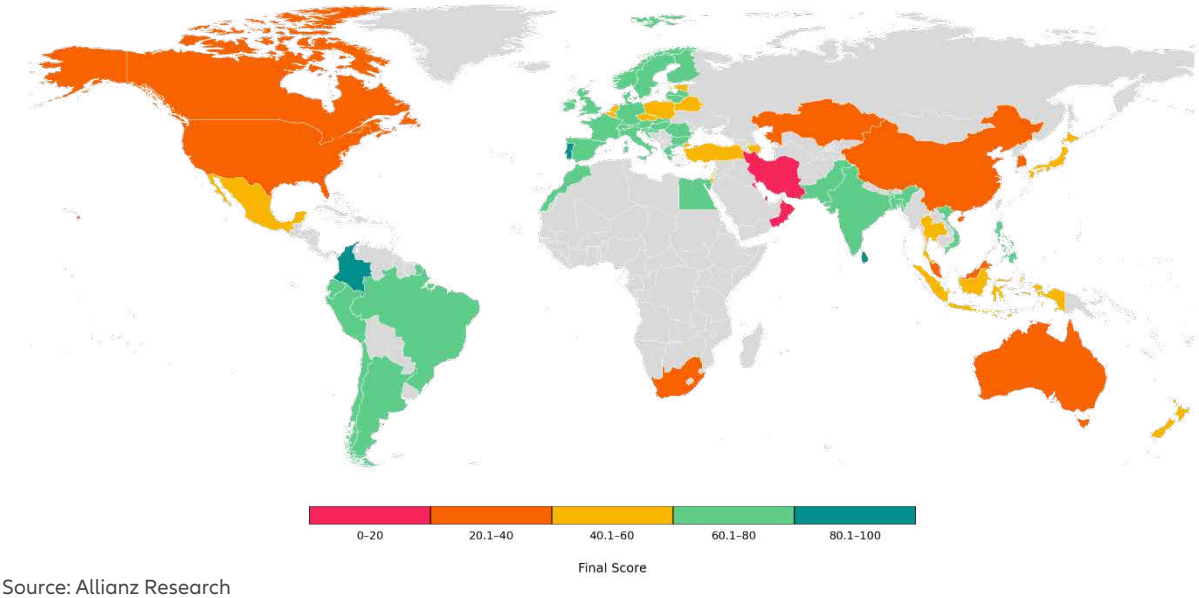
The global transition is increasingly running at two speeds, with leaders pulling further ahead, while laggards struggle to keep pace. Countries in the top half of the transition progress ranking improved their scores by an average of 2.6 points, compared with 1.3 points in the bottom half. This divergence is mirrored in the Peer Score (Figure 7 and Appendix A1), where the gap between the two groups widened by 1.4 points. European countries feature prominently among the top performers, alongside Colombia, Peru and Sri Lanka. Several fossil-fuel-producing economies in the Middle East remain near the bottom, with Iran and Qatar ranking among the lowest and Oman and Kuwait sharing last place. The world's largest emitters, China and the US, improve only modestly and remain in the bottom half of the progress ranking and near the bottom of the Peer Score. India is the notable exception among the big three, moving up several places on efficiency gains and a cleaner power mix, although it remains in the bottom half and rising electricity demand will test whether progress lasts.

Figure 6: Climate transition *Progress Score*

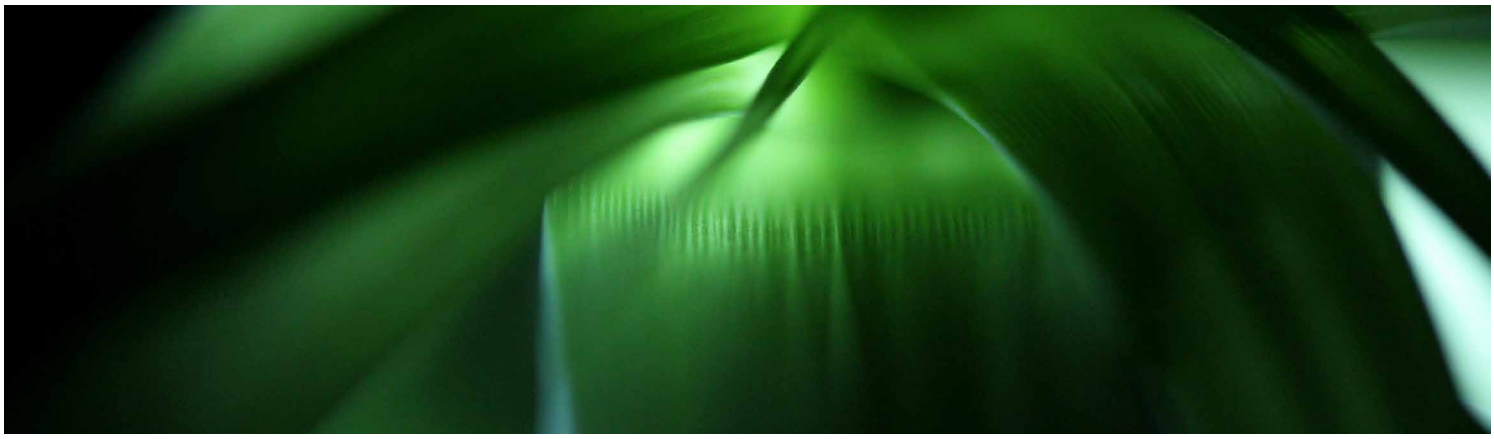


Source: Allianz Research

Figure 7: Climate transition *Peer Score*



Source: Allianz Research



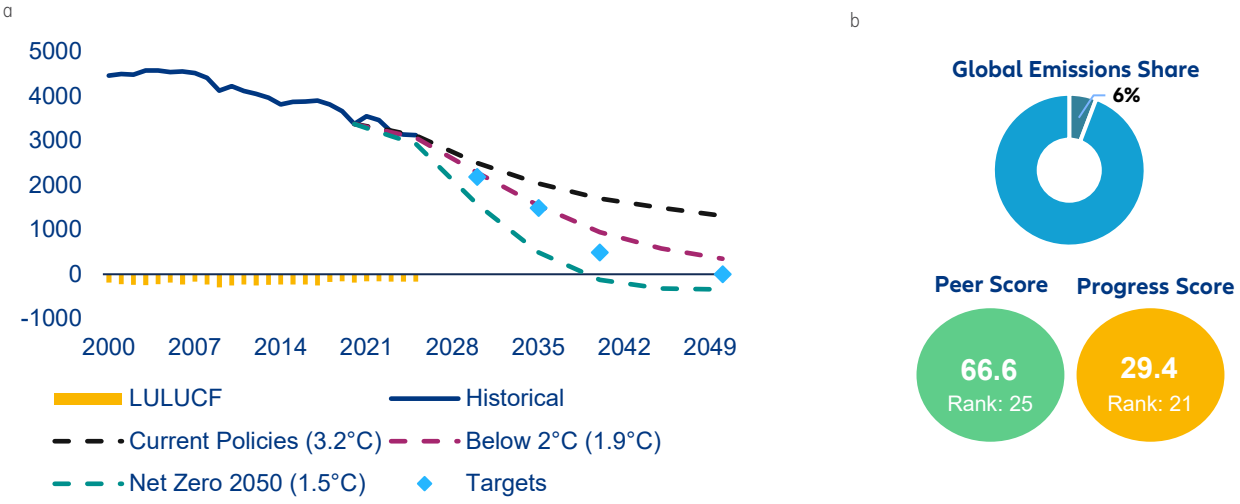
Country and regional deep dives

European Union – Leading the transition, but struggling to accelerate

The EU continues to lead the green transition, although the pace of progress is slowing. Emissions in the EU decreased by 0.2% in 2025, marking the fourth consecutive year of reductions since 2021 (Figure 8a). However, the pace has slowed compared to previous years, which showed an average annual reduction rate of -4%. Progress Scores across EU countries improved by 2.2 points on average, year-on-year, 0.2 points above the global average. Denmark, Estonia, Finland and Czechia recorded the strongest improvements among EU member states, each gaining more than four points. Europe's leading position is further reflected in the overall rankings: all ten countries making the greatest progress since 2015 are European, seven of which are EU members. EU countries also account for half of the top ten Peer-Score performers.

These results suggest that the EU decarbonization strategy and associated measures are delivering progress, but the pace remains insufficient. At the current rate of improvement, reaching net-zero-aligned levels across the indicators assessed would take until 2057, implying a seven-year implementation gap. The slowdown in emissions reductions also raises concerns about Europe's ability to stay on track for its climate targets, with current emission pathways increasingly diverging from a 1.5°C-compatible trajectory (Figure 8a). Accelerating implementation will therefore be critical to translating Europe's continued leadership into timely, climate-aligned outcomes.

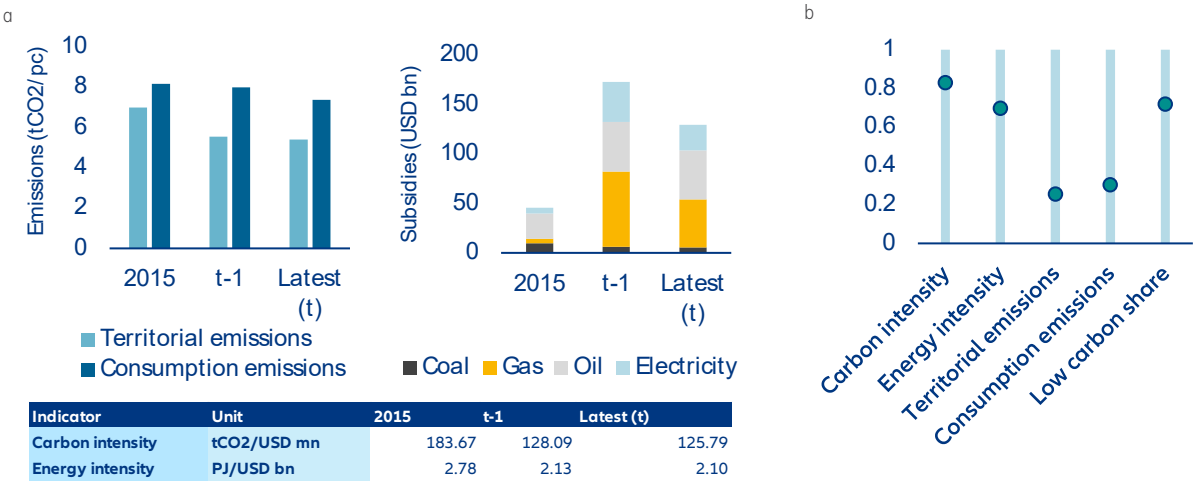
Figure 8: a) Historical emission & decarbonization pathways (MtCo2eq) and b) climate transition scores



Sources: Allianz Research based on JRC EDGAR, NGFS and UNEP; NGFS climate scenarios represent a 67% probability of not exceeding the following global warming thresholds by 2100: Current Policies (3.2°C), Below 2°C Scenario (1.9°C), and Net Zero 2050 (1.5°C). LULUCF (land use, land-use change and forestry) emissions include those from deforestation, fires, forest land, organic soils and other sources.

Four out of the five key climate indicators improved since our last assessment (Figure 9). The strongest gains came from consumption-based emissions per capita, which fell by 8% in the EU, compared with a 3% decline in territorial emissions.[5] Economic efficiency indicators improved more modestly, with the carbon intensity of the EU economy declining by 2% and energy intensity by just 1%. Although direct fossil fuel subsidies remained elevated at around USD129bn in 2024, total fossil energy support declined by USD 43.6bn, primarily reflecting lower subsidies for gas and electricity.

Figure 9: a) Climate performance indicators and b) percentile rank of the country for each indicator



Indicator	Unit	2015	t-1	Latest (t)
Carbon intensity	tCO2/USD mn	183.67	128.09	125.79
Energy intensity	PJ/USD bn	2.78	2.13	2.10

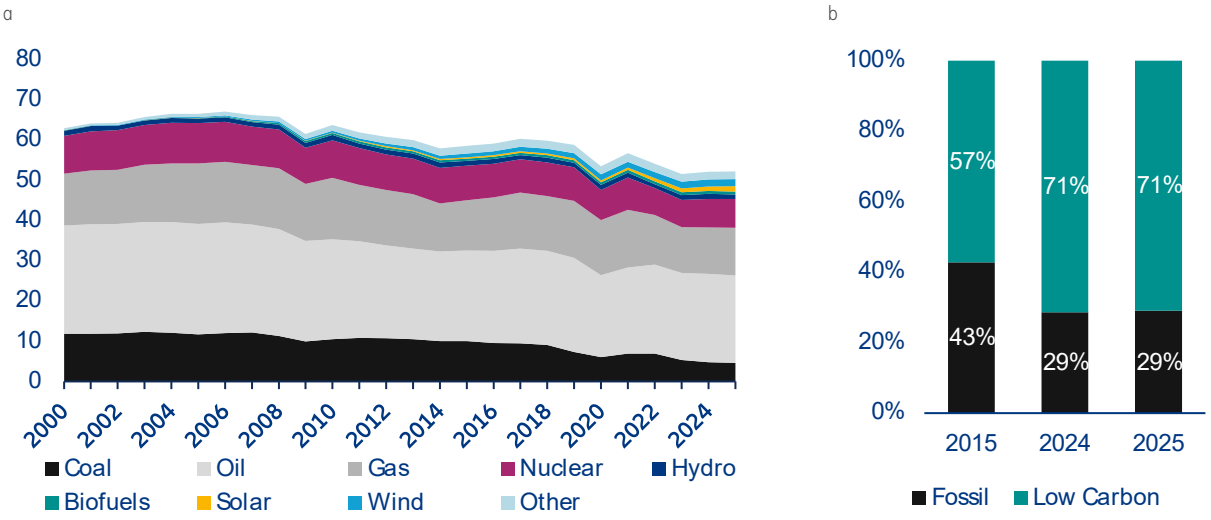
Sources: Allianz Research based on JRC EDGAR, Energy Institute, Global Carbon Budget, World Bank, EMBER, NGFS

Developments in the EU's energy supply and power generation were mixed in 2025. Coal supply in the EU's primary energy mix continued its downward trend in 2025, dropping 3.4% (Figure 10a). However, it has been largely replaced by a 3% pick up in energy consumption from natural gas while oil consumption remained broadly stable. On the power generation side, solar continued its strong expansion, growing by around 22% annually since the 2022 energy crisis. However, this was partly offset by a 2% decline in wind generation in 2025 which, despite an additional 12 GW of installed capacity, showed lower output due to weaker wind conditions early in the year. Lower hydropower generation, reflecting less favorable rainfall conditions than in 2024, further offset these gains, leaving the share of low-carbon sources in electricity generation broadly unchanged at around 71% (Figure 10b).

Country-level developments varied considerably. Denmark recorded the largest improvement in the low-carbon share of electricity generation (+5pp), followed by Estonia (+4.1pp), Croatia (+3.0pp) and Slovenia (+2.3pp). By contrast, the share declined most sharply in Lithuania (-6.6pp), Belgium (-4.2pp) and Austria (-2.6pp), highlighting diverging national trajectories despite the broadly stable EU-wide share.

[5] Due to time lags in the reported indicators latest values throughout the report refer to different years: 2025: Carbon intensity, Energy intensity, Low Carbon Share, Emission Share; 2024: Territorial Emissions, Fossil subsidies; 2023: Consumption emissions

Figure 10: a) Development of total energy supply (EJ) and b) low-carbon share in power mix (%)



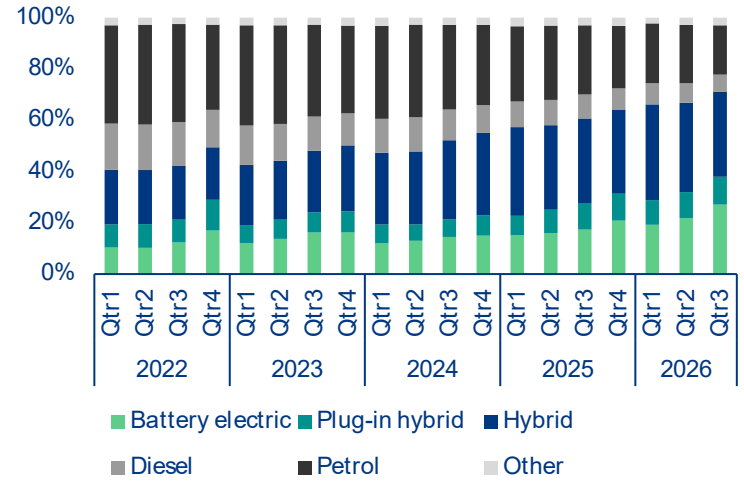
Sources: Allianz Research, Energy Institute, EMBER

While emissions in most sectors continue to decline, transport remains the EU's main decarbonization challenge. Agriculture, buildings, fuel production, processes and industrial combustion have all recorded modest but sustained emissions reductions, averaging around 1–3% annually over the past five years. Transport, by contrast, has yet to achieve a comparable decline. It overtook the power sector as the EU's largest emitting sector in 2022 and now accounts for around 25.6% of total EU emissions.

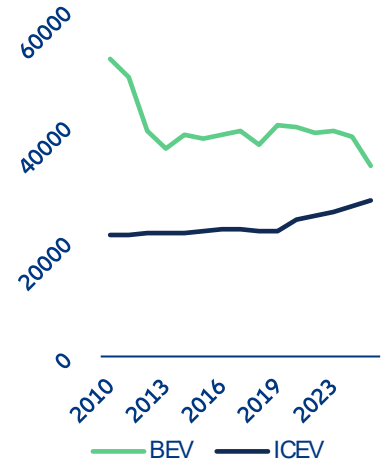
However, the outlook may be shifting as EVs become more affordable and higher fuel prices strengthen the incentive to switch from petrol and diesel cars to electric alternatives. Low-emission car uptake has been on the rise since 2020, but higher fuel costs following the closure of the Strait of Hormuz have given this trend a further boost in 2026. Registrations of electric vehicles in particular have increased strongly, rising by 32–56% year-on-year across the first three quarters of the year (Figure 11a). This momentum has accelerated in recent months, with battery-electric vehicles (BEVs) accounting for 30% of new car registrations in September, 11.2pp higher than a year earlier. Improving affordability is also supporting adoption, with the price gap between battery-electric and internal combustion engine vehicles narrowing from USD 30,500 in 2010 to USD 6,000 in 2025 (Figure 11b). Looking ahead, the introduction of the EU's ETS2 carbon-pricing system for road transport fuels in 2028 could further strengthen the economic incentive to switch to electric vehicles, helping sustain this shift beyond the current period of elevated fuel prices.

Figure 11: a) Share of quarterly car registrations by powertrain in the EU (in %) and b) average city car prices across major European markets (in USD)

a



b



Sources: EV Sales Data Tracker (EMBER), IEA, Allianz Research; Note: price averages are calculated across Germany, Italy and France



Box 1: From Hormuz to the showroom: fuel prices will accelerate the electric vehicle transition

Geopolitical shocks can generate price signals far stronger than those typically seen under climate policy. The Iran conflict and resulting disruptions in the Strait of Hormuz have substantially increased diesel prices. Reproducing this increase through carbon pricing alone would require a CO_2 price exceeding EUR 200/tCO_2 (Figure 12a). Additionally, including existing fuel taxes and other charges, the total price premium over the pre-tax diesel price is equivalent to a carbon price of more than EUR 600/tCO_2 (Figure 12b). Consequently, the current conflict-related diesel price increase accounts for around one-third of this total premium. Such price shocks lead to increased electric vehicle adoption which in turn reduces the dependence on unstable global oil markets.

Once electric vehicles gain a foothold, market transformation progresses consistently. Across the observed countries, the battery-electric vehicle (BEV) share of new car registrations follows a surprisingly linear average trajectory once it crossed the 10% threshold for new BEV registrations (Figure 13). The 12-month rolling average (calculated across countries with available data at each point) suggests that, on average, the transition from 10% to nearly 100% of new registrations takes around 12 years. Although the final years of the shown trajectory are represented by Norway alone (being the only country to pass the 10% threshold already 12 years ago), the broader country sample in earlier years also follows the aggregate trend relatively closely, despite substantial differences in individual country trajectories.

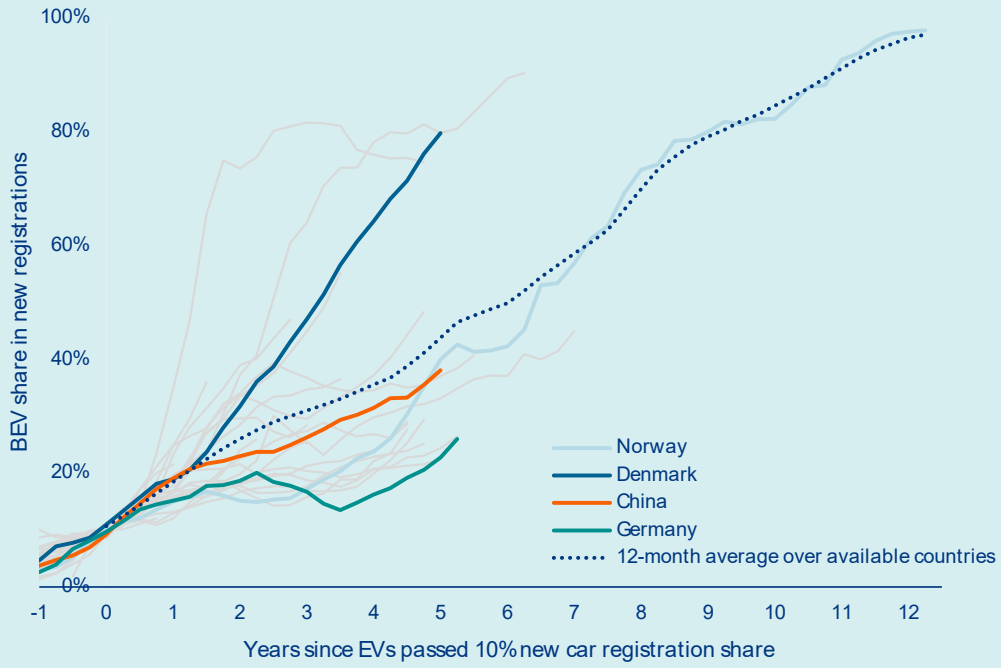
Importantly, several major automotive markets have yet to reach the 10% take-off threshold, including Italy (8%), the US and Canada (7%), India (6%), Brazil (5%), Japan (3%) and Mexico (2%). Higher fuel prices potentially provide an additional push to transition the mobility sector in these countries. However, unlike temporary geopolitical price shocks, predictable climate policies and sustained infrastructure investment can help turn short-term incentives into lasting structural change.

Figure 12: What would a carbon tax on diesel need to be, to mimic a) the conflict price increase and b) the conflict price increase plus tax?



Sources: EC Weekly Oil Bulletin, Allianz Research; Note: Carbon pricing based on own calculations. Diesel at 2.67kgCO2/liter.

Figure 13: Battery electric vehicle share in new car registrations



Sources: Ember EV Sales Data Tracker, Allianz Research; Note: Shown economies include Albania, Australia, Austria, Belgium, China, Colombia, Cyprus, Denmark, Finland, France, Germany, Hong Kong, Indonesia, Ireland, Luxembourg, Malta, Nepal, Netherlands, New Zealand, Norway, Portugal, Singapore, Slovenia, South Korea, Spain, Sweden, Switzerland, Taiwan, Thailand, Türkiye, Ukraine, United Kingdom, Uruguay, Viet Nam.

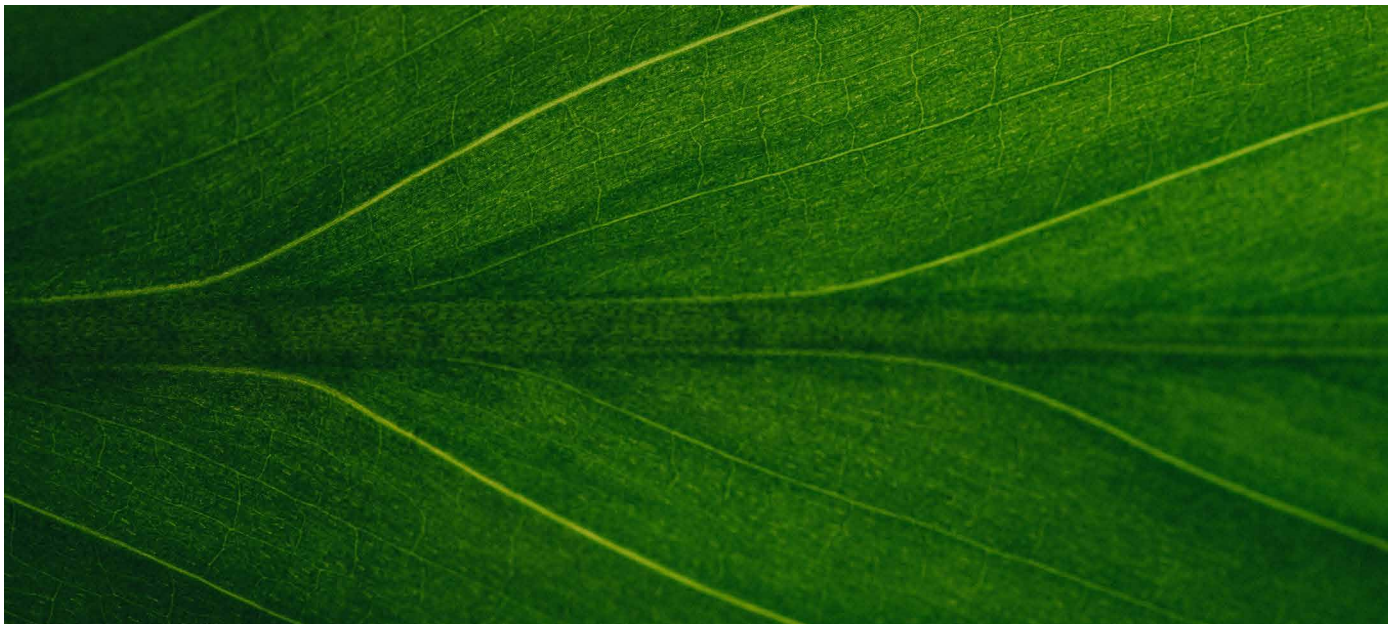
Looking ahead, several challenges will shape the next phase of Europe's green transition:

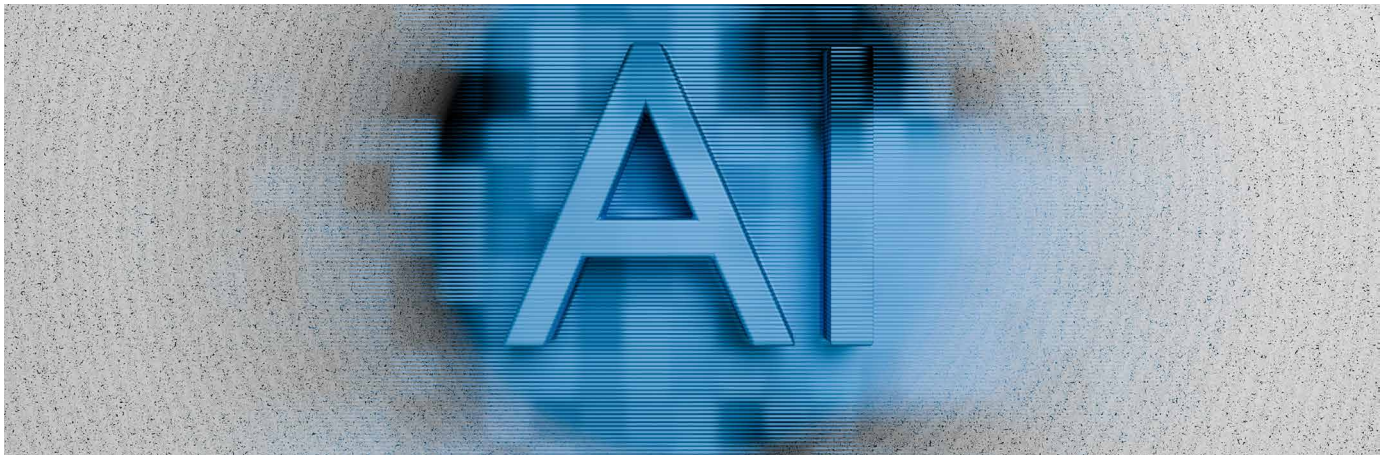
- **Preserving the effectiveness of the EU ETS:** Proposed changes to the EU Emissions Trading System (ETS1) seek to balance decarbonization with industrial competitiveness, but risk weakening near-term emissions-reduction incentives and increase uncertainty for long-term investment. Maintaining a credible carbon-price signal, alongside expanding the Carbon Border Adjustment Mechanism (CBAM) to better address carbon leakage risks, will be essential. ETS2 should also be implemented without further delays, extending carbon pricing to road transport and buildings, where significant emissions reductions remain to be achieved.

- **Avoiding renewed fossil-fuel subsidy lock-ins:** The 2022 energy crisis drove fossil-fuel subsidies up by 170% reaching USD204bn. With the Strait of Hormuz shock again pushing energy prices higher, governments face renewed pressure to increase fossil subsidies. The 2022 experience shows how difficult such support can be to unwind, with fossil subsidies still 70% above pre crisis levels, raising the risk that temporary relief measures become entrenched and prolong Europe's dependence on fossil fuels.

- **Accelerating electrification and aligning decarbonization with competitiveness:** Grid constraints and insufficient flexibility could limit the benefits of expanding renewables, while slower electrification in transport, buildings and industry continues to hold back emissions reductions. Investment in grids, storage and demand-side technologies, alongside measures to accelerate EV adoption, heat-pump deployment and smart-meter rollout, will be essential to reduce fossil-fuel dependence, improve energy efficiency and support Europe's industrial competitiveness.

Europe has established many of the foundations for the green transition, but turning this progress into faster emissions reductions remains the central challenge. Success will depend on maintaining credible policy incentives and aligning investment in clean energy, infrastructure and electrification with both climate objectives and industrial competitiveness.



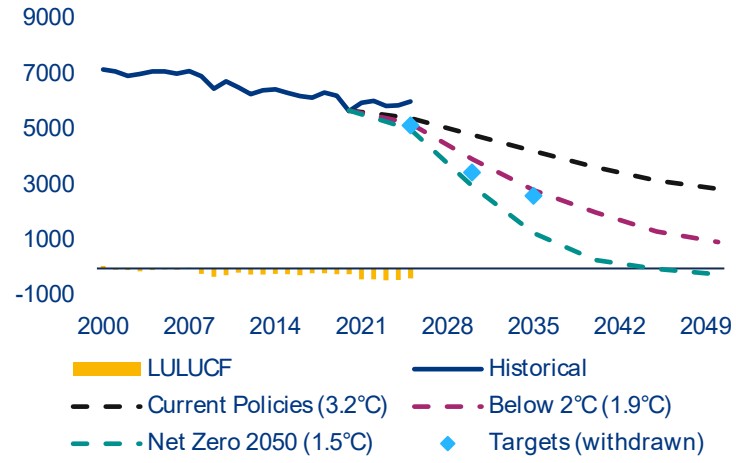


United States – When green transition meets AI boom

Over the past year, progress on the green transition in the United States has largely stalled. Although the country's Progress Score increased by 1.2 points, from 17.7 to 18.9 (Figure 14b), overall emissions rose for the second consecutive year, indicating a growing divergence from a Paris-aligned transition pathway consistent with limiting global warming to below 2°C (Figure 14a). Improvements in per capita emissions and low-carbon power generation offer some positive signals (Figure 15a), but progress remains limited, placing the US in the bottom half of assessed countries. Although its Progress Score increased by 1.2 points, this was 0.8 points below the global average, pushing the US down one place in the progress ranking, from 40th to 41st. Its Peer Score, meanwhile, declined from 33.2 to 30.8, leaving the US in 55th place among global peers.[6] Given these developments the US remains one of the world's largest emitters, accounting for approximately 11% of global emissions. Despite modest improvements, both territorial and consumption-based emissions per capita remain particularly high, while the energy efficiency of the US economy continues to lag behind that of most assessed countries, placing it in the bottom 30% of countries analyzed.

Figure 14: a) Historical emission & decarbonization pathways (MtCo2eq) and b) climate transition scores

a



b

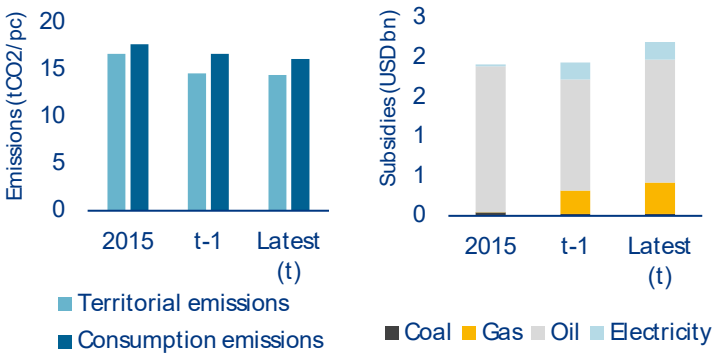


Sources: Allianz Research based on JRC EDGAR, NGFS and UNEP; NGFS climate scenarios represent a 67% probability of not exceeding the following global warming thresholds by 2100: Current Policies (3.2°C), Below 2°C Scenario (1.9°C), and Net Zero 2050 (1.5°C). LULUCF (land use, land-use change and forestry) emissions include those from deforestation, fires, forest land, organic soils and other sources.

[6] See Appendix A1

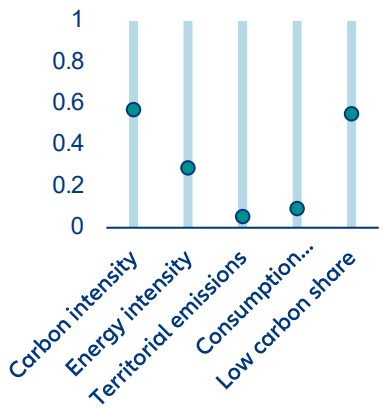
Figure 15: a) Climate performance indicators and b) percentile rank of the country for each indicator

a



Indicator	Unit	2015	t-1	Latest (t)
Carbon intensity	tCO2/USD mn	306.12	229.29	229.55
Energy intensity	PJ/USD bn	4.42	3.58	3.57

b

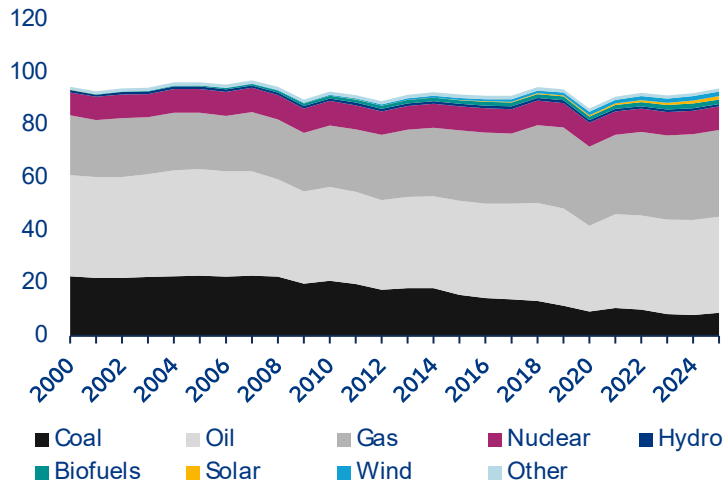


Sources: Allianz Research based on JRC EDGAR, Energy Institute, Global Carbon Budget, World Bank, EMBER, NGFS

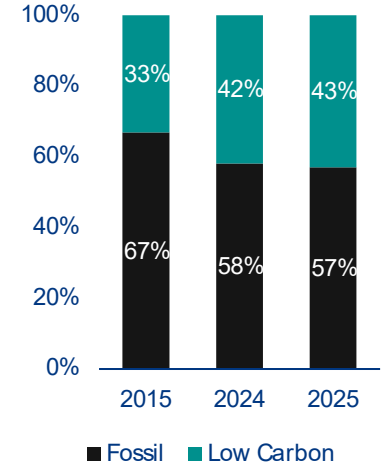
The increase in US emissions in 2025 was driven primarily by the power sector, which accounted for 51% of the total increase, followed by transport (16%) and fuel production (8%). However, the rebound was broad-based, with 2025 marking the first year since 2018 in which emissions increased across all sectors.[7] In the power sector, emissions rose for the first time since the pandemic, reflecting growing electricity demand and a modest increase in coal-fired generation. More broadly, despite the expansion of low-carbon power generation, total energy supply in the US has remained stable or increased slightly over the past 10 years (Figure 16a), highlighting the difficulty of reversing the country's energy consumption trajectory as demand growth continues to offset progress in decarbonization.

Figure 16: a) Development of total energy supply (EJ) and b) low-carbon share in power mix (%)

a



b



Sources: Allianz Research, Energy Institute, EMBER

[7] Covered sectors include: Agriculture, Buildings, Fuel Production, Industrial Combustion, Power Industry, Processes, Transport and Waste

This challenge is likely to persist in the near term as electricity demand accelerates, with data centers emerging as the key driver. Having accounted for around 35% of US electricity demand growth over the past five years, data centers are expected to contribute around 48% of additional demand through 2030, adding an estimated 210 TWh to electricity consumption.[8] Including rising demand from industry, transport, heating and cooling, total US electricity demand is projected to increase by more than 400 TWh, or around 9%, by 2030. However, the implications for emissions depend not only on the scale of this increase, but also on what drives demand and how it is met: while electrification of transport and heating can reduce overall energy consumption by replacing less efficient fossil-fuel technologies, rising demand from data centers could put further upward pressure on emissions if it is met by carbon-intensive power generation.

On the end-use side, the transition remains uneven. Hybrid and electric vehicles continue to gain ground, with the share of new vehicle sales accounted for by internal combustion engine (ICE) vehicles falling from around 95% in 2020 to 78% in 2025, driven largely by the growing uptake of hybrids. Battery-electric vehicle (BEV) sales, however, weakened following the phase-out of federal tax credits in September 2025, before recovering modestly to 6.3% of total sales from a low of 4.3%.[9] Progress in heating has been more limited: heat pump shipments declined in 2025, now indicating several years of stagnation.[10] A comparatively high electricity-to-gas price ratio in the US, at 5.7 compared with 2.8 in the EU, further weakens the economic incentive to switch from gas heating to electric alternatives.[11]

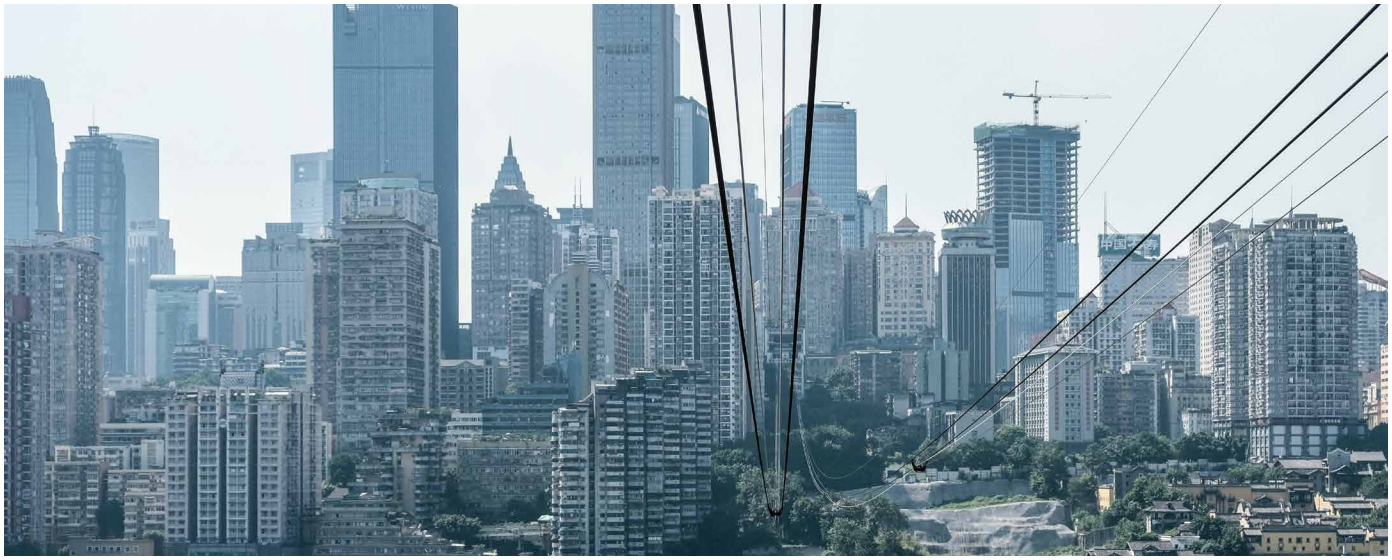
On the generation side, a rising tide has lifted all boats, with growth in electricity demand supporting both renewable and fossil-fuel generation. Solar output has grown by an average of 24% annually, while wind generation increased by around 3% per year over the last two years, despite significant political headwinds, particularly facing offshore projects. At the same time, the AI-driven data center boom is spurring investment in power infrastructure, with annual spending on grids and storage in North America rising by 113% since 2020.[12] Such investment is essential to the green transition, as expanding grid capacity and storage helps connect new renewable projects, manage variable output and deliver clean electricity where it is needed. Yet, the expansion is also benefiting fossil fuels: coal-fired generation rose by 13% in 2025, while investment in coal and gas, particularly LNG infrastructure, more than tripled from 2024 levels.[13] For the US decarbonization trajectory, the key question is whether the surge in electricity demand can accelerate renewable deployment or further entrench the country's reliance on fossil fuels.

Getting the US green transition back on track will depend on three key developments:

- **Scaling renewables and grid infrastructure:** Wind and solar are among the most cost-competitive sources of new electricity generation, but faster deployment depends on expanding grid capacity, accelerating connections and investing in storage. Without these investments, bottlenecks could slow renewables while rising demand sustains fossil-fuel generation.
- **Correcting price signals and internalizing emissions costs:** Relatively cheap natural gas and the limited pricing of its environmental costs weaken incentives to switch to heat pumps and other low-carbon alternatives. Reforming fossil-fuel support and better reflecting emissions costs in energy prices could help, but would require political backing.
- **Making AI work for the climate:** AI workloads currently add an estimated 23.6 $MtCO_2$ to US greenhouse gas emissions, around 15% of the total emissions increase since 2023.[14] These emissions could quadruple by 2030. Whether AI supports or undermines decarbonization will depend on its ability to accelerate renewable deployment and deliver efficiency gains that outweigh its growing energy footprint.

The near-term outlook remains challenging, with the risk that US emissions continue to rise before a sustained decline takes hold. Accelerating electricity demand, continued investment in fossil fuels and policy headwinds for renewables could further delay decarbonization. Reversing this trajectory will require not only investment in clean technologies, but also the political will to align energy markets and infrastructure with climate objectives.

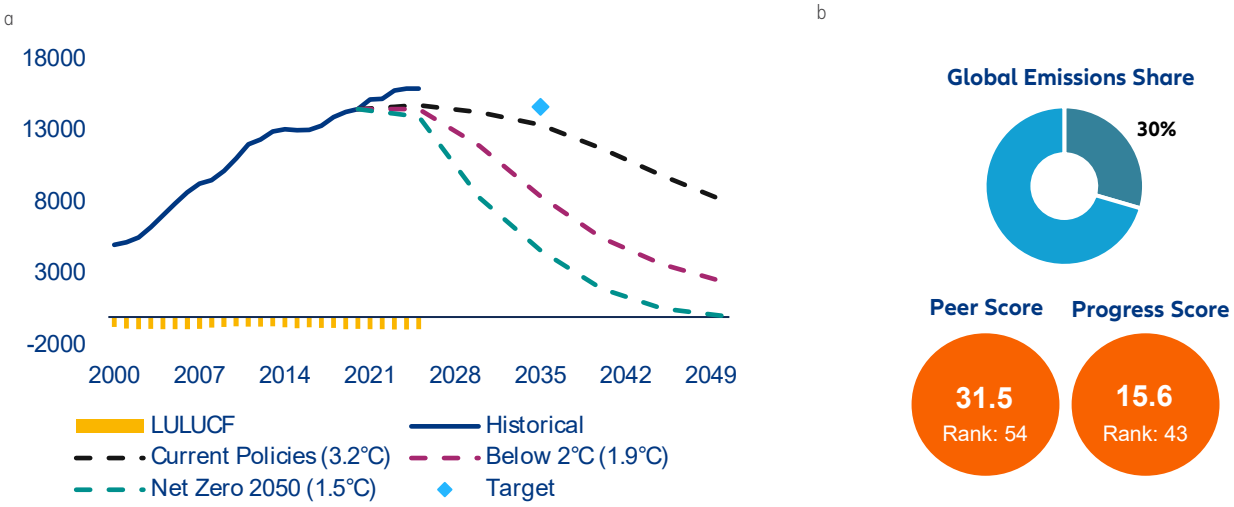
[8] US electricity demand growth drivers - IEA and Code, carbon, kilowatts: AI's hidden toll and the race to green the grid | Allianz
[9] EV Sales Data Tracker | Ember
[10] Central Air Conditioners and Air-Source Heat Pumps | AHRI
[11] Electricity-to-gas price ratios in the industry sector by selected countries, 2024 - IEA
[12] World Energy Investment 2026 Datafile - Data product - IEA
[13] EMBER and IEA
[14] For more details see: Code, carbon, kilowatts: AI's hidden toll and the race to green the grid | Allianz



China – Electrification accelerates as emissions approach a peak

China's green transition is gaining momentum, with emissions showing signs of stabilizing after decades of growth, although a sustained decline has yet to materialize. Following a 3.7% increase in 2023, annual emissions growth slowed to 0.9% in 2024 and just 0.06% in 2025, bringing total emissions to 15,981 $MtCO_2eq$ (Figure 17a). With emissions growth nearly coming to a halt in 2025, China, which accounts for around 30% of global emissions, may be nearing its emissions peak. **However, its emissions trajectory remains substantially higher than pathways consistent with limiting global warming to below 2°C (Figure 17a).** Meanwhile, China's Progress Score increased from 13.3 to 15.6, with its ranking dropping one position from 42nd to 43rd among 65 assessed economies. Its Peer Score declined from 33.9 to 31.5, while its ranking remained unchanged at 54th (Figure 17b).

Figure 17: a) Historical emission & decarbonization pathways (MtCo2eq) and b) climate transition scores

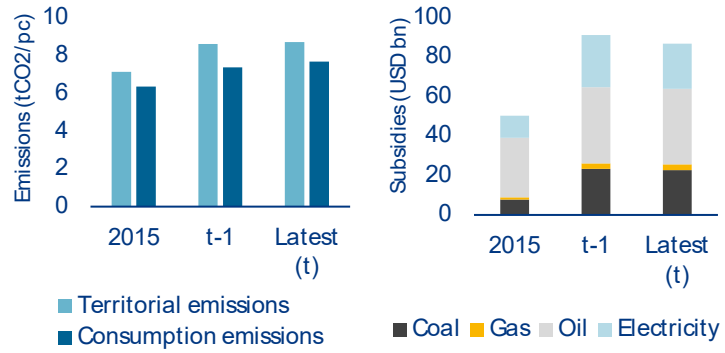


Sources: Allianz Research based on JRC EDGAR, NGFS and UNEP; NGFS climate scenarios represent a 67% probability of not exceeding the following global warming thresholds by 2100: Current Policies (3.2°C), 2°C Scenario (1.9°C), and Net Zero 2050 (1.5°C). LULUCF (land use, land-use change and forestry) emissions include those from deforestation, fires, forest land, organic soils and other sources.

China continues to improve its carbon and energy efficiency, but these gains have yet to translate into lower per-capita emissions. Carbon intensity declined by 4.7% over the past year, from 475.37 to 453.18 tCO_2 per USD mn, while energy intensity fell by 2.7%, from 4.73 to 4.60 PJ per USD bn (Figure 18a). In contrast, territorial emissions per capita edged up from 8.63 to 8.72 tCO_2, while consumption-based emissions per capita increased more markedly from 7.38 to 7.70 tCO_2 (Figure 18a). Despite continued efficiency improvements, China remains relatively poorly positioned among global peers, particularly in terms of carbon intensity and territorial emissions per capita (Figure 18b).

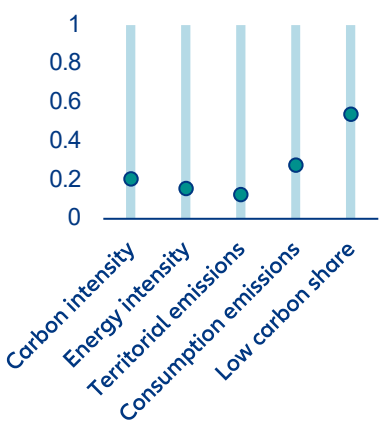
Figure 18: a) Climate performance indicators and b) percentile rank of the country for each indicator

a



Indicator	Unit	2015	t-1	Latest (t)
Carbon intensity	tCO2/USD mn	637.28	475.37	453.18
Energy intensity	PJ/USD bn	5.78	4.73	4.60

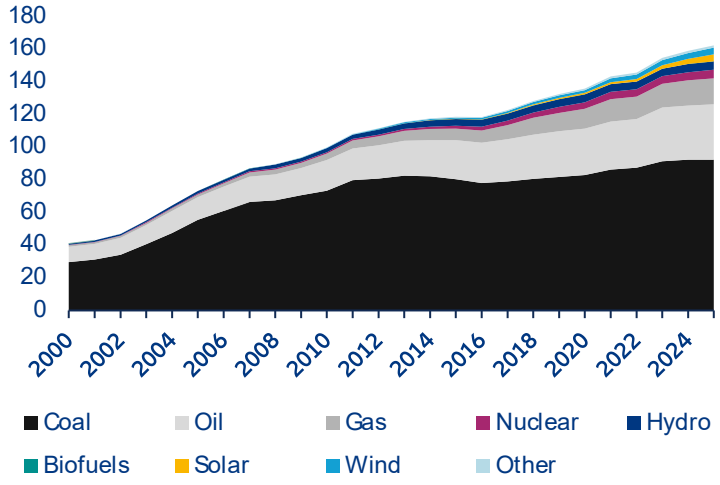
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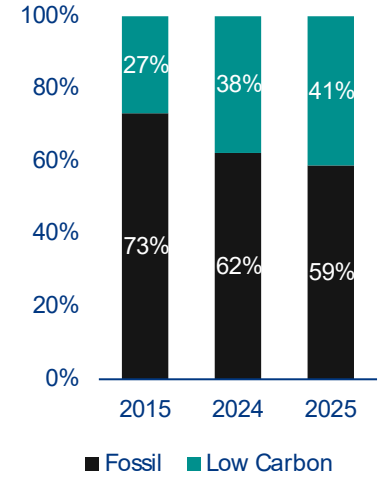
Sources: Allianz Research based on JRC EDGAR, Energy Institute, Global Carbon Budget, World Bank, EMBER, NGFS

Figure 19: a) Development of total energy supply (EJ) and b) low-carbon share in power mix (%)

a



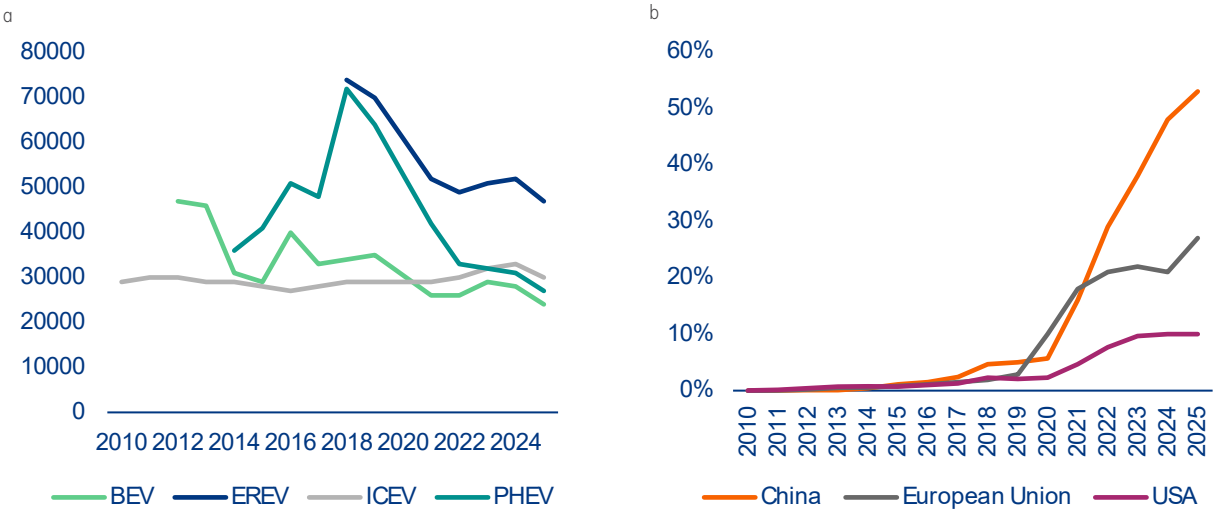
b



Sources: Allianz Research, Energy Institute, EMBER

China's electricity mix is becoming cleaner, but coal continues to dominate its broader energy system. The share of low-carbon sources in electricity generation increased from 27% in 2015 to 38% in 2024 and 41% in 2025, gaining three percentage points over the past year (Figure 19b). Fossil fuels still account for approximately 59% of electricity generation, and coal remains the largest source of total energy supply (Figure 19a). Notably, China's coal energy supply remained virtually unchanged at around 92.2 EJ in 2025, while solar and wind energy supply increased by approximately 40% and 13%, respectively. According to the IEA, coal-fired electricity generation declined by around 1.5%[15] despite a 5.1%[16] increase in electricity demand, indicating that clean power expansion is beginning to displace coal-fired generation rather than merely meet additional demand. Maintaining this shift as electricity demand continues to grow will be important for China to reach peak emissions before 2030. Sustained emissions reductions thereafter will require clean electricity to keep replacing fossil-fuel generation.

Figure 20: a) Average market price by power train in China (USD 2025) and b) EV sales share in total car sales (%)



Sources: IEA, Allianz Research

Beyond power generation, China's rapid adoption of electric vehicles is accelerating the shift away from fossil fuels in road transport. The share of electric vehicles (EVs) in new car sales surged from around 6% to 53% in just five years, far outpacing adoption in Europe and the US (Figure 20b). This rapid expansion has coincided with a sharp improvement in price competitiveness. Average battery-electric vehicle (BEV) prices have fallen substantially, dropping below those of conventional combustion engine vehicles (ICEVs) in 2021 (Figure 20a). According to the IEA, around 70% of BEVs sold in China in 2025 were cheaper than the average conventional car, suggesting that EV adoption is increasingly driven by market competitiveness rather than policy incentives alone.[17]

China's EV boom has been underpinned by a reinforcing cycle of investment, innovation, financing and scale. In 2024, China invested USD676bn in green technologies, equivalent to 3.7% of GDP and around 40% more than Europe.[18] Long-term industrial policies and targeted support helped mobilize investment in EV and battery technologies, while technological advances and expanding production capacity contributed to declining costs. Greater affordability supported rapid market adoption, further strengthening incentives for innovation and production expansion.

[15] IEA Global Energy Review 2026 - Coal
[16] IEA Global Energy Review 2026 – Electricity Demand
[17] IEA Global EV Outlook 2026
[18] Allianz Research (2024)

China's EV expansion is already translating into measurable reductions in oil demand, although its climate benefits depend on the electricity used for charging. The IEA estimates that EVs displaced around 1 million barrels of oil per day in China in 2025, equivalent to roughly 15% of road transport oil demand in a scenario without EV deployment.[19] More recent estimates by CREA put oil displacement at 36 million tons in the first half of 2026, generating estimated net CO_2 savings of 35 Mt in the second quarter alone after accounting for electricity-generation emissions.[20] These net savings show that EV adoption can reduce emissions even with China's relatively carbon-intensive power mix. Further decarbonization of electricity generation would increase the climate benefits of transport electrification.

Looking ahead, China's challenge is to translate rapid electrification into sustained emissions reductions. Achieving this will depend in part on whether China can continue expanding the infrastructure needed to support the energy transition, including electricity grids and battery storage. Although EVs already account for more than half of new car sales[21], conventional vehicles still represented around 88%[22] of China's vehicle fleet at the end of 2025. As these vehicles are gradually replaced, the impact on oil demand is expected to grow. Under the IEA's current and stated policies scenarios, oil demand displaced by EVs in China could exceed 4 million barrels per day by 2035, accounting for roughly half of global EV related oil displacement.[23] With emissions growth nearly stalling in 2025, China appears increasingly well positioned to meet its commitment to peak carbon emissions before 2030. The bigger question is whether this progress can put the country on a credible path towards its longer-term goal of carbon neutrality before 2060. Reaching that goal will require sustained reductions across the economy, well beyond the progress already achieved in electricity generation and road transport.



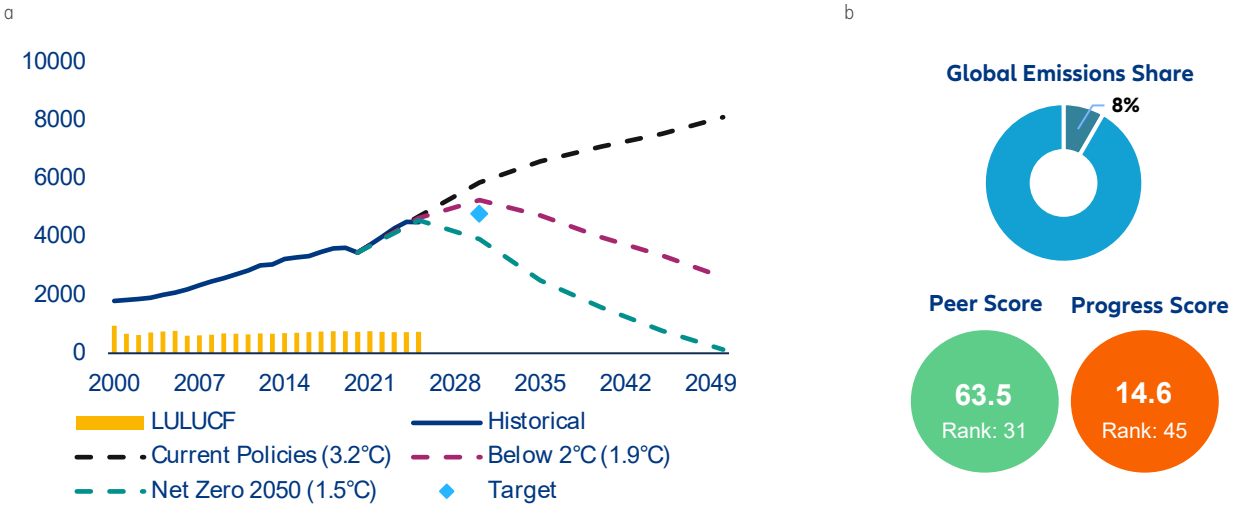
[19] IEA Global EV Outlook 2026
[20] CREA and Carbon Brief
[21] EMBER. EVs here include both battery electric and plug-in-hybrid vehicles.
[22] National Bureau of Statistics of China
[23] IEA Global EV Outlook 2026

India – Clean power gains face a rising demand challenge

India recorded a decline in greenhouse gas emissions in 2025, despite continued strong economic growth. Total emissions excluding LULUCF fell by 0.2% to 4,508 $MtCO_2eq$, only the second annual decline over the past 25 years and the first outside an economic contraction, while real GDP grew by around 7.6%[24]. The improvement was largely supported by developments in the power sector, where rapid growth in renewable generation coincided with slower electricity demand growth and favorable hydrological conditions. India still accounts for 8.3% of global emissions, but its Progress Score increased by 4.5 points to 14.6, the seventh-largest improvement among the 65 countries assessed, moving India up five places to rank 45 (Figure 21b).[25] Its Peer Score of 63.5 (rank 31) continues to reflect relatively low per-capita emissions despite the rapid expansion of the economy.

A single year of falling emissions does not yet indicate a lasting change in trajectory. India's 2025 emissions remain below the levels implied for that year by all three NGFS scenarios (Figure 21a), but these scenarios still allow Indian emissions to rise over the rest of the decade. Under current policies, emissions would increase to around 5,900 $MtCO_2eq$ by 2030 and 6,600 $MtCO_2eq$ by 2035. A pathway consistent with limiting warming to below 2°C would allow a peak of roughly 5,300 $MtCO_2eq$ around 2030 and a decline to about 4,700 $MtCO_2eq$ by 2035, while a Net Zero 2050 pathway would require emissions to fall by around 13% from today's level by 2030. Whether 2025 marks the beginning of a sustained decline will therefore depend on India's ability to meet future electricity demand growth without increasing its reliance on coal.

Figure 21: a) Historical emission & decarbonization pathways (MtCo2eq) and b) climate transition scores



Sources: Allianz Research based on JRC EDGAR, NGFS and UNEP; NGFS climate scenarios represent a 67% probability of not exceeding the following global warming thresholds by 2100: Current Policies (3.2°C), Below 2°C Scenario (1.9°C), and Net Zero 2050 (1.5°C). LULUCF (land use, land-use change and forestry) emissions include those from deforestation, fires, forest land, organic soils and other sources.

[24] GDP growth (annual %) - India | Data

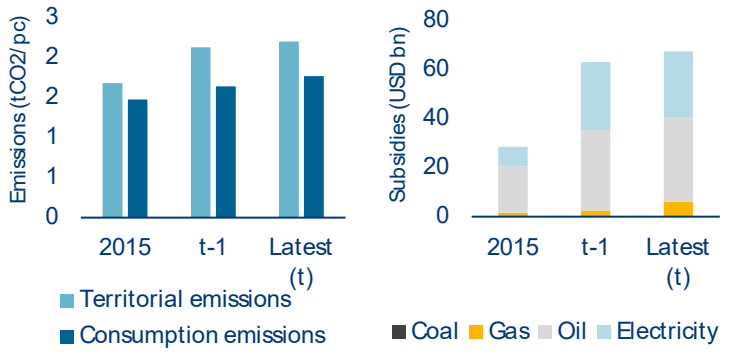
[25] On this basis, India's 2024 Progress Score was 10.1 (rank 51), compared with 11.2 (rank 50) reported in the 2025 edition. The improvement to 14.6 in 2025 therefore represents an increase of 4.5 points and five ranking positions on a consistent data basis.

The improvement in India's Progress Score reflects efficiency gains and cleaner power rather than lower per-capita emissions. Energy intensity made the largest contribution, followed by carbon intensity and the low-carbon share in electricity. The carbon intensity of the economy fell by 7% over the past year to 294 tCO_2 per USD mn and is now 23% below its 2015 level. Energy intensity declined by 6% to 2.66 PJ per USD bn, moving India from rank 44 to rank 38 out of 76 countries for which data was available (Figure 22). The low-carbon share in electricity rose from 22.4% to 26.6%, the largest annual increase since at least 1985, improving India's rank from 130 to 123 out of 209 countries (Figure 22b).

Per-capita emissions, however, continue to rise, and fossil-fuel support remains substantial. Territorial CO_2 emissions per capita increased by 3% to 2.2 tCO_2 and consumption-based emissions by 8% to 1.8 tCO_2, still well below the levels of advanced economies but trending upward as incomes rise. Fossil-fuel subsidies increased to USD67.5bn from USD63.1bn a year earlier, more than twice their 2015 level. Support for oil consumption (USD34.3bn) remains the largest component, and gas subsidies have more than doubled to USD6.1bn. The electricity component (USD27.1bn) mainly reflects below-cost power tariffs and supports fossil fuels only indirectly, through the dominance of coal in power generation. These measures weaken price signals for energy efficiency and low-carbon alternatives, while maintaining distortions in energy markets that could slow the transition.

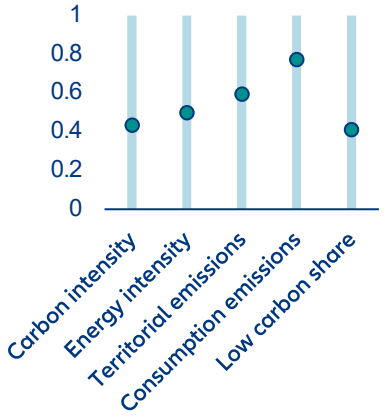
Figure 22: a) Climate performance indicators and b) percentile rank of the country for each indicator

a



Indicator	Unit	2015	t-1	Latest (t)
Carbon intensity	tCO2/USD mn	382.52	316.93	294.05
Energy intensity	PJ/USD bn	3.27	2.84	2.66

b



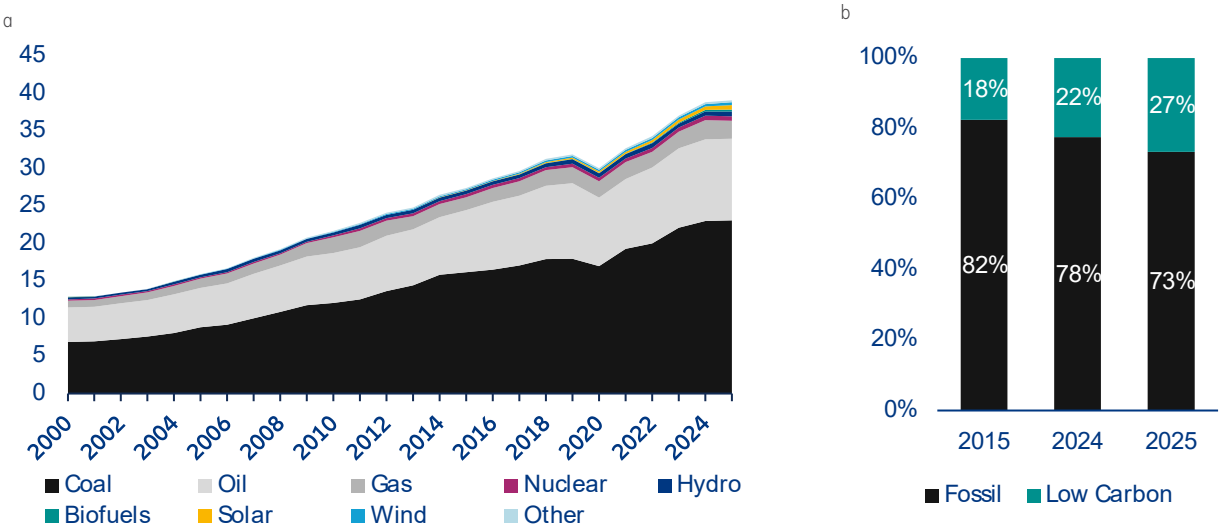
Sources: Allianz Research based on JRC EDGAR, Energy Institute, Global Carbon Budget, World Bank, EMBER, NGFS

India's 2025 power-sector gains reflected both structural progress and temporary factors. Clean electricity generation increased by 97 TWh (+21%), about twice the rise in electricity demand (+49 TWh, +2.4%). As a result, coal-fired generation fell by 44 TWh (-2.9%), its first decline since the pandemic, and power-sector emissions declined by around 3%.[26] Solar output rose by 37% (+53 TWh) and wind by 28% (+23 TWh), on the back of record capacity additions. But temporary conditions also played a role. According to CREA, milder temperatures reduced electricity generation by an estimated 34 TWh compared with a scenario in which temperatures remained at their 2024 levels, while stronger monsoon rainfall lifted hydropower generation by 14%.[27] These developments contributed to the decline in coal-fired generation, making it difficult to determine how much of the reduction in emissions reflects a lasting change in the electricity mix.

[26] EMBER data
[27] CREA, India Power Sector Review 2025, January 2026. CREA also finds that part of the slowdown in electricity demand growth is structural and predates 2025.

Developments in 2026 show how fragile these gains remain once demand recovers. Coal-fired generation rose by nearly 10% year-on-year between April and August 2026, reaching its highest level in three years, while hydropower output fell by more than 11% amid deficient monsoon rainfall. In September alone, coal generation increased by 13% while hydropower declined by 20%.[28] Solar and wind generation continued to grow strongly, but not fast enough to absorb the rebound in demand. Looking ahead, the IEA expects Indian electricity demand to grow by an average of 6.4% per year through 2030, adding more than 570 TWh over five years.[29] Against this background, the chairperson of the Central Electricity Authority has indicated that the 97 GW of coal additions previously envisaged by 2035 might need to be revised upward, potentially to 105-150 GW. This is an assessment rather than an adopted plan, but it highlights a risk of overinvestment in coal assets that could end up underutilized if renewables, storage and demand-side flexibility expand faster than anticipated. Beyond electricity, the energy system remains firmly fossil-based: fossil fuels still covered 93% of total energy supply in 2025, and coal continues to dominate primary energy even though coal-fired generation declined (Figure 23a).

Figure 23: a) Development of total energy supply (EJ) and b) low-carbon share in power mix (%)



Sources: Allianz Research, Energy Institute, EMBER

[28] Central Electricity Authority data as reported by The Indian Express and KNN India, October 2026.
[29] IEA, Electricity 2026: Analysis and forecast to 2030, January 2026.

Scaling clean generation fast enough to keep pace with demand will depend increasingly on the grid. India added around 51 GW of renewable capacity in fiscal year 2025-26,[30] and utility-scale solar capacity under construction (104 GW) now exceeds the utility-scale capacity in operation (99 GW).[31] Projects with identified commissioning dates alone would add 132 TWh/yr of solar and wind generation between 2027 and 2030, the third-largest dated pipeline worldwide. The IEA expects solar to meet around half of India's additional electricity demand through 2030 and coal around a quarter, with coal's share in generation falling from around 70% to 60%. Realizing this potential requires faster grid expansion. Curtailment due to transmission constraints reached around 300 GWh in the first quarter of 2026, concentrated in high-renewable regions, and around 20 GW of renewable capacity could face grid-connectivity delays of more than four months in fiscal year 2026-27, affecting commissioning schedules and investment returns.[32]

India's new climate commitments and its emerging carbon market strengthen the policy framework, but leave the path of absolute emissions open. India's third Nationally Determined Contribution, submitted in April 2026, targets a 47% reduction in the emissions intensity of GDP by 2035 relative to 2005, a 60% non-fossil share of installed power capacity and an additional carbon sink of 3.5-4 $GtCO_2eq$.[33] The previous 50% non-fossil capacity target for 2030 has already been met, but the new targets do not imply an absolute emissions peak before 2035.[34] Introducing an explicit emissions peak-year ambition, supported by quantified sectoral pathways, would improve the predictability of the transition. Under the Carbon Credit Trading Scheme, around 490 entities across seven energy-intensive sectors now face binding emission-intensity targets, and trading rules were put in place in early 2026.[35] Its effect on investment will depend on the start of exchange trading, the resulting price level and how quickly targets are tightened.



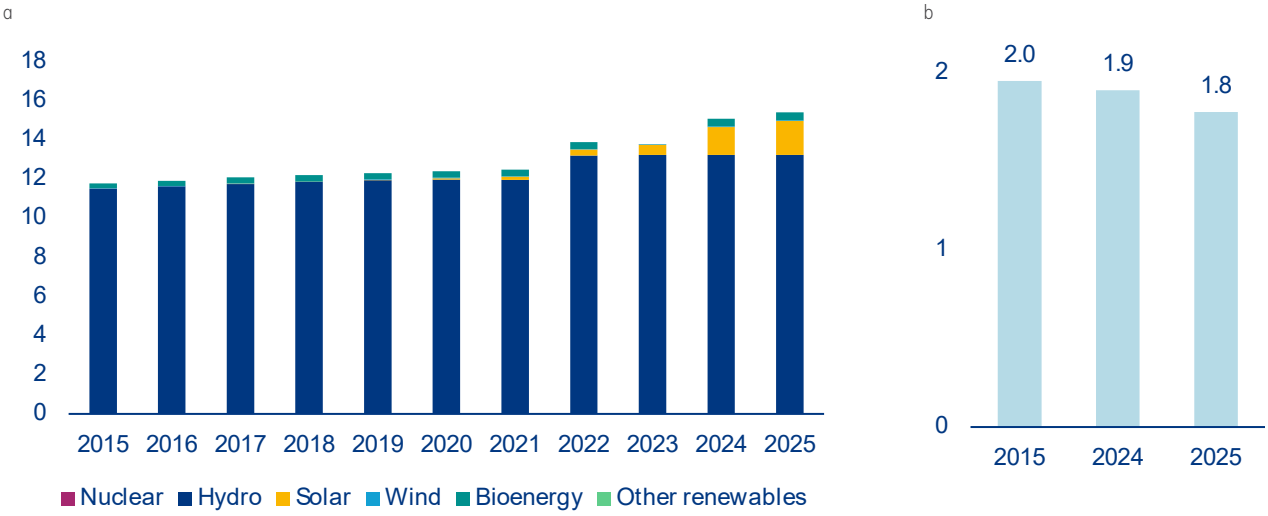
[30] S&P Global Commodity Insights, India's power and renewables market: Demand stalls, capacity rises, April 2026.
[31] Global Energy Monitor, Global Solar Power Tracker and Global Wind Power Tracker, February 2026.
[32] Ember, Transmission gaps are beginning to constrain India's rapid renewables integration, 2026.
[33] UNFCCC, India's Nationally Determined Contribution (2031-2035), April 2026:
[34] LSEG, India's new NDC: the final piece in the 2035 climate targets puzzle, 2026.
[35] ICAP, Compliance obligations under India's Carbon Credit Trading Scheme enter into force for seven sectors, 2026; CERC, Purchase and Sale of Carbon Credit Certificates Regulations, February 2026.

Transition stories beyond the major markets

Colombia – hydropower rebounds as solar gains ground

Colombia recorded the largest improvement in the Green Transition Tracker, driven by a cleaner electricity mix and declining energy intensity. Its Progress Score increased by 16.5 points to 25. Hydropower has long dominated Colombia's low-carbon generation capacity, with little change in installed capacity over recent years (Figure 24a). Energy intensity also declined from around 1.9 PJ/USD bn in 2024 to 1.8 in 2025, indicating lower energy use per unit of economic output (Figure 24b).

Figure 24: a) Low carbon generation capacity (GW) and b) energy intensity (PJ/USD bn)

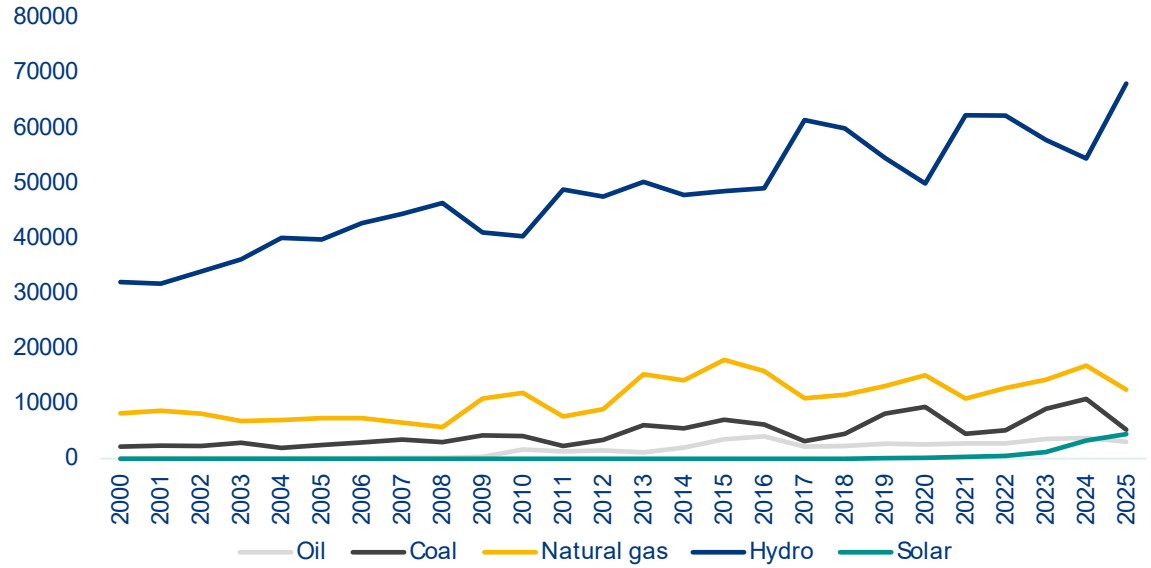


Source: EMBER, Energy Institute, World Bank, Allianz Research

Colombia's cleaner electricity mix in 2025 reflects both a recovery in hydropower and a sustained expansion of solar generation. Drought conditions associated with El Niño in 2024 had constrained hydropower output and increased reliance on fossil-fuel generation.[36] As hydrological conditions improved in 2025, hydropower generation rose by 25% to 68.1 TWh, accompanied by a 51% decline in coal-fired generation and a 26% drop in gas-fired generation. Solar electricity generation also increased, reaching 4.47 TWh compared with 1.24 TWh in 2023 (Figure 25). Unlike the weather-driven hydropower rebound, solar growth reflects new capacity coming online. Earlier renewable-energy incentives and long-term power procurement arrangements supported project development, with large solar plants such as Guayepo entering operation in 2024.[37]

[36] IEA, Electricity 2025: Analysis and forecast to 2027
[37] Enel, The Guayepo I & II photovoltaic park

Figure 25: Electricity generation in Colombia by selected source, 2000-2025 (GWh)



Source: IEA, Allianz Research
Notes: Selected sources shown include oil, coal, natural gas, hydropower and solar PV. Wind and biofuels are excluded for clarity given their comparatively small or stable contribution over the period.

Recent policy measures aim to sustain these gains, although their contribution to the latest improvements remains difficult to assess. Colombia's 2022-2030 energy-efficiency action plan targets energy savings in transport, industry and other sectors.[38] In 2025, the government also introduced measures to streamline renewable-project permitting and address grid-connection bottlenecks.[39] These steps should support further investment, but there is not yet sufficient evidence to attribute the recent decline in energy intensity to these policies.

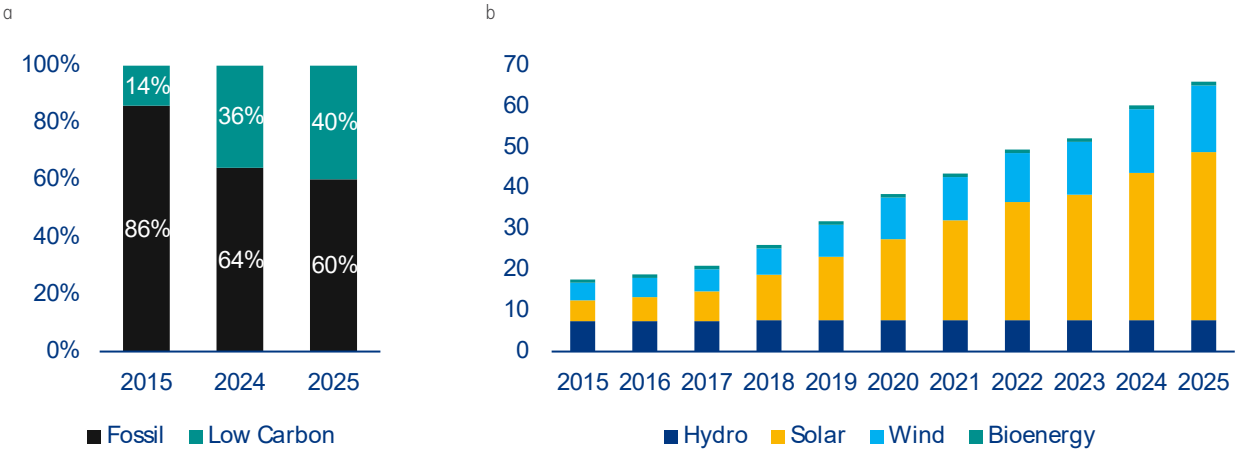
The challenge is to make Colombia's progress less dependent on rainfall. Hydropower still accounted for around 94% of low-carbon electricity generation in 2025, leaving the power system exposed to future droughts[40]. Expanding solar capacity offers a more diversified clean-power mix, but fossil fuels remain important across the broader economy. Colombia's recent performance therefore combines a strong hydropower rebound with longer-term changes in renewable capacity, and sustaining the latter will be key to maintaining progress.

[38] UPME, Energy Efficiency Programme
[39] Colombia, Ministry of Environment (2025)
[40] Data from IEA, own calculation

Australia – Batteries reshape the power transition

Australia has considerable room for further decarbonization, making it a country to watch in future editions of the Green Transition Tracker. Its Progress Score stands at just 23, with fossil fuels still accounting for around 60% of electricity generation in 2025, including more than 40% from coal (Figure 26a). Fossil fuels also dominate the broader energy mix. Over the past decade, solar and wind capacity have expanded rapidly (Figure 26b), their contribution to electricity generation has increased, and coal-fired generation has gradually declined. This leaves substantial scope for further emissions reductions as renewable capacity continues to grow.

Figure 26: a) Power mix (in %) and b) Low carbon generation capacity (GW)



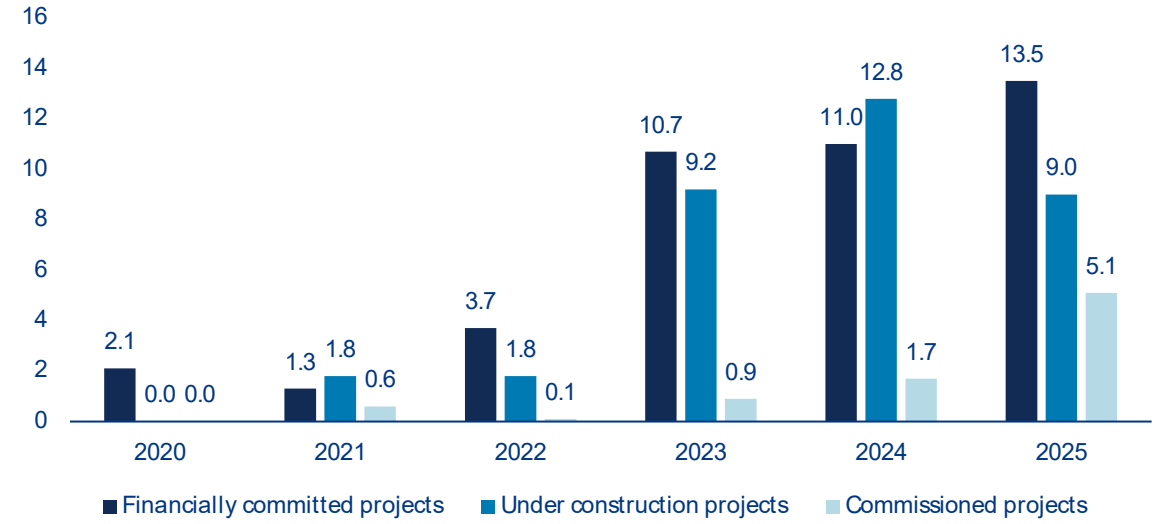
Source: EMBER, Energy Institute, World Bank, Allianz Research

The expansion of battery storage could accelerate the replacement of coal-fired generation. Australia has become the world's third-largest utility-scale battery storage market, behind China and the United States.[41] In 2025, Australia commissioned 2.0 GW (5.1 GWh) of large-scale battery storage, while a further 4.3 GW (13.5 GWh) reached financial close (Figure 27). Batteries help balance the variability of solar and wind generation by storing excess electricity and releasing it when generation falls. This shift is already visible in the National Electricity Market: according to the Australian Energy Market Operator (AEMO), average battery discharge rose from 98 MW in Q1 2025 to 359 MW in Q1 2026, with increased daytime charging and stronger evening discharge.[42] Besides, nearly 40% of battery projects in the pipeline offer between three and 10 hours of storage.[43]

The next phase of Australia's electricity transition will be shaped by how quickly new projects enter operation. The government aims to raise the renewable share of electricity generation to 82% by 2030[44], supported by the Capacity Investment Scheme, which provides long-term revenue support for new renewable generation and dispatchable clean energy projects[45]. As more solar, wind and battery projects come online, they could reduce coal-fired generation, increase the low-carbon share of electricity and lower carbon intensity. Much of the current project pipeline remains at an early stage, making grid connections and project completion important for future progress.

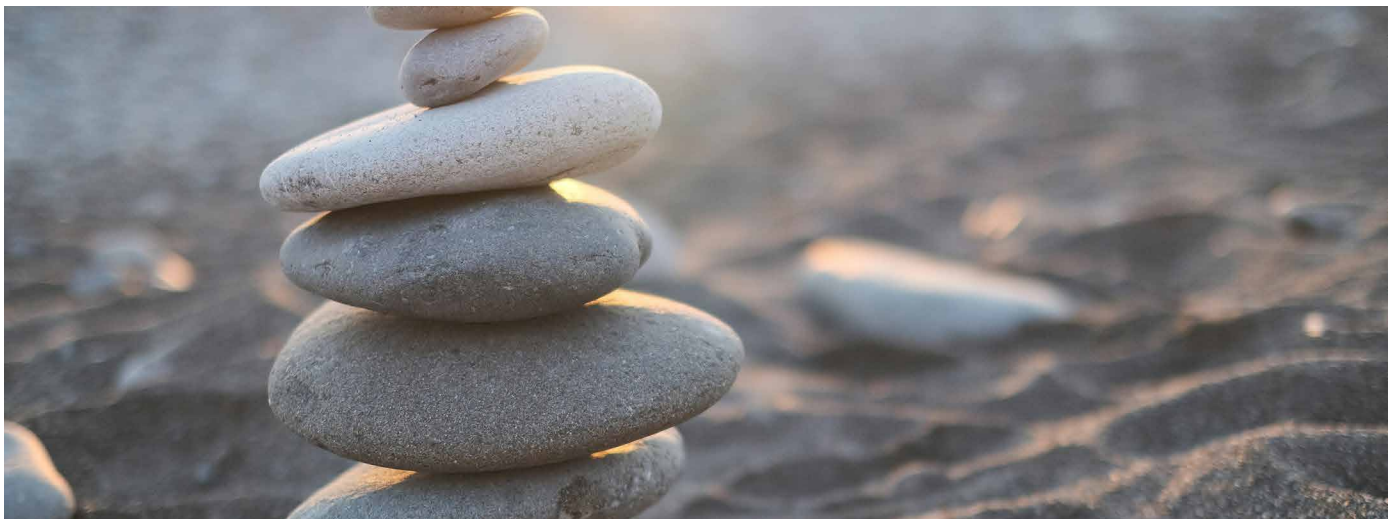
[41] Australian Trade and Investment Commission (2026)
[42] Australian Energy Market Operator (2026)
[43] Australian Energy Market Operator (2026)
[44] Australian Government, Department of Industry, Science and Resources
[45] Australian Government, Department of Climate Change, Energy, the Environment and Water (2026)

Figure 27: Large-scale battery storage projects by development stage in Australia, 2020-2025 (GWh)



Source: Australian Clean Energy Council.
Notes: Commissioned capacity refers to capacity entering operation in each year; financially committed and under-construction projects are not yet operational.

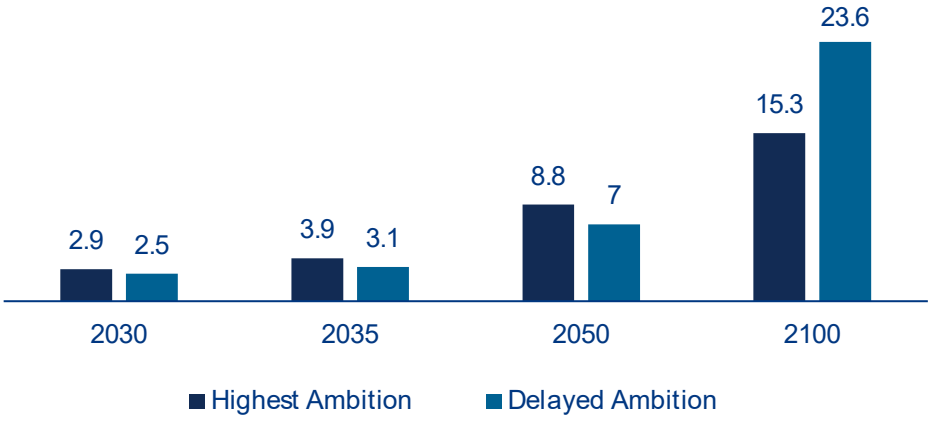




Balancing the budget: Scaling CDR and the role of negative emissions

Carbon dioxide removal (CDR) is becoming essential to limit the duration of temperature overshoot, but it cannot compensate for a slow energy transition. UNEP's 2026 assessment identifies a lowest-possible overshoot pathway in which warming peaks at around 1.7–1.8°C before returning to 1.5°C or below by 2100 with approximately a 50% probability. That outcome requires both deep emissions cuts and increasing CO_2 removals.[46] CDR captures atmospheric CO_2 and stores it. Its first role is to balance residual emissions that cannot readily be eliminated. Only when removals exceed remaining CO_2 emissions does the global balance become net negative, potentially reversing CO_2-driven warming. The economic implications of delay are substantial. In the State of CDR's Highest Ambition scenarios, annual removals reach a median 8.8GtCO_2 in 2050 and 15.3Gt in 2100. Delaying stronger mitigation by ten years lowers deployment initially, but increases the 2100 requirement to 23.6Gt, around 54% higher (Figure 28). Delaying emissions reductions increases the need for CDR in the second half of the century, with greater demands on land, low-carbon energy and capital. The faster emissions fall today, the less CO_2 will need to be removed in the future.

Figure 28: Annual carbon dioxide removal under Highest Ambition and Delayed Ambition scenarios (GtCO_2/yr)

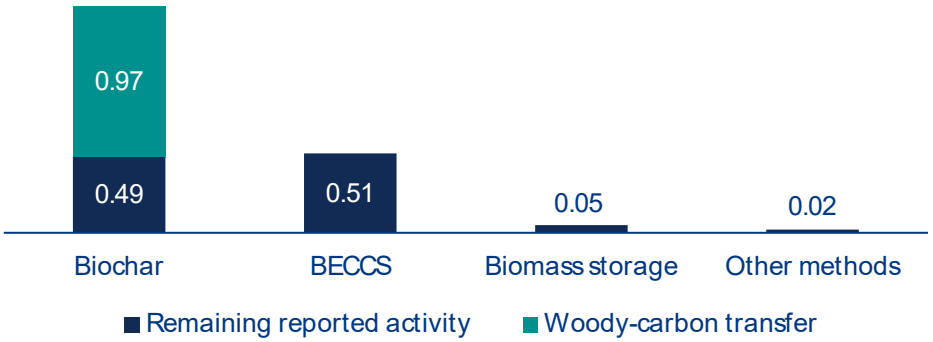


Sources: The State of CDR (2026), Allianz Research

[46] Emissions Gap Report 2026 | UNEP - UN Environment Programme

Carbon removal remains dominated by forests, while novel technologies are still marginal. Afforestation and reforestation removed an estimated 2.2GtCO_2 annually over 2014-2023, compared with just 2.04MtCO_2 of reported novel-CDR activity in 2025. Biochar (1.46Mt) and bioenergy with carbon capture and storage (BECCS, 0.51Mt) accounted for 97% of novel activity, while direct air capture and storage (DACCS) contributed only 0.0015Mt. Of the biochar total, 0.97Mt involved carbon absorbed by trees in earlier years and transferred into more durable storage, without additional atmospheric uptake in 2025 (Figure 29). Reported activity also differs from net removal after accounting for lifecycle emissions. Technologies face different economic and physical constraints: forests require land and protection against carbon losses, biomass-based methods depend on sustainable feedstocks, and DACCS requires substantial low-carbon energy and storage infrastructure. These differences affect costs and deployment potential, making generic cost estimates uncertain.

Figure 29: Reported novel-CDR activity by method, 2025 (MtCO_2/yr)

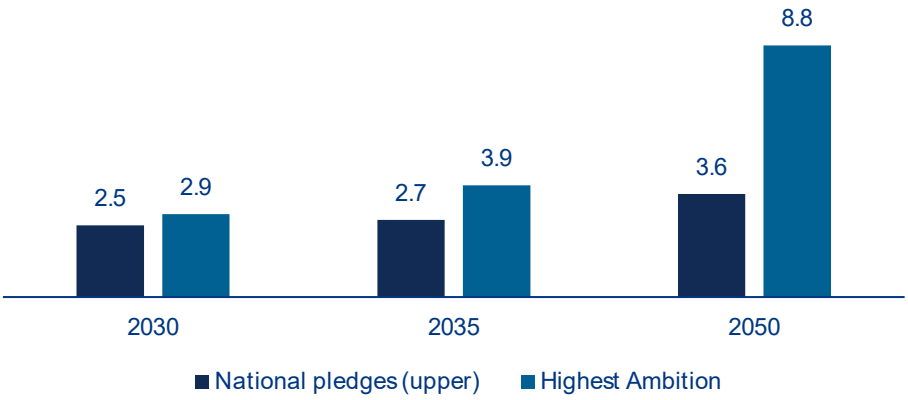


Sources: The State of CDR (2026), Allianz Research

National commitments remain well below the CDR volumes required in ambitious climate scenarios. Under the most ambitious scenario, pledges imply annual removals of 2.7GtCO_2 in 2035 and 3.6Gt in 2050, compared with scenario medians of 3.9Gt and 8.8Gt, respectively. By 2050, pledges cover only 41% of the requirement, leaving an annual gap of 5.2GtCO_2 (Figure 30). For novel CDR, operating and under-construction projects, including related scaling, could provide 8.4MtCO_2 of annual capacity by 2030, against approximately 70Mt required. Even at full capacity, this would cover only 12% of the projected needs. New projects may enter the pipeline, while existing ones face delays and operational uncertainties. Scaling deployment will require investment in supply chains, permitting, storage infrastructure and long-term purchasing agreements. The IEA reports delays and cancellations of several BECCS projects in 2025, largely due to uncertain demand and the lack of long-term purchasing agreements. Permitting, supply-chain constraints and limited CO_2 transport and storage infrastructure present further obstacles to deployment.[47]

[47] Policy and financing momentum sustain CCUS progress despite setbacks - IEA

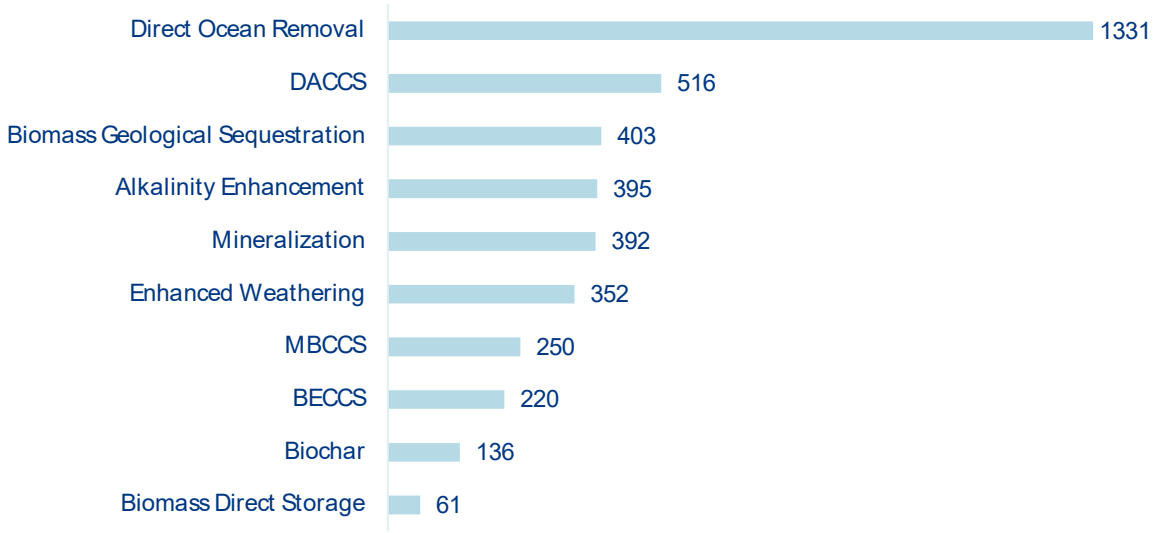
Figure 30: National pledges versus Highest Ambition scenario removals ($GtCO_2/yr$)



Sources: The State of CDR (2026), Allianz Research

CDR prices vary widely across technologies, while most contracted removals have yet to be delivered. Nature-based solutions generally remain the lowest-cost option for scaling CDR today, although their potential is constrained by land availability and the risk of carbon losses. Weighted-average CDR prices across ten technologies range from USD61/tCO_2 for biomass direct storage to USD1,331 for direct ocean removal. Biochar averages USD136, BECCS USD220 and DACCS USD516 (Figure 31). Limited buyer budgets and delivery risks remain major obstacles to financing.[48] At an assumed price of USD150–400/tCO_2, the 3.5Gt of annual novel removals projected for 2050 would imply expenditures of USD525bn–1.4trn per year, excluding conventional removals. Financing deployment depends on long-term purchasing agreements and reliable delivery commitments. Public procurement and risk-sharing mechanisms could support investment, provided payments are linked to verified net removals. Sweden has introduced competitive subsidies for bio-CCS, with payments linked to the quantity of CO_2 permanently stored[49], while the UK is developing revenue guarantees and protection against transport and storage risks[50].

Figure 31: Publicly disclosed weighted-average removal contract prices (USD/tCO_2)



Sources: CDR.fyi, Allianz Research

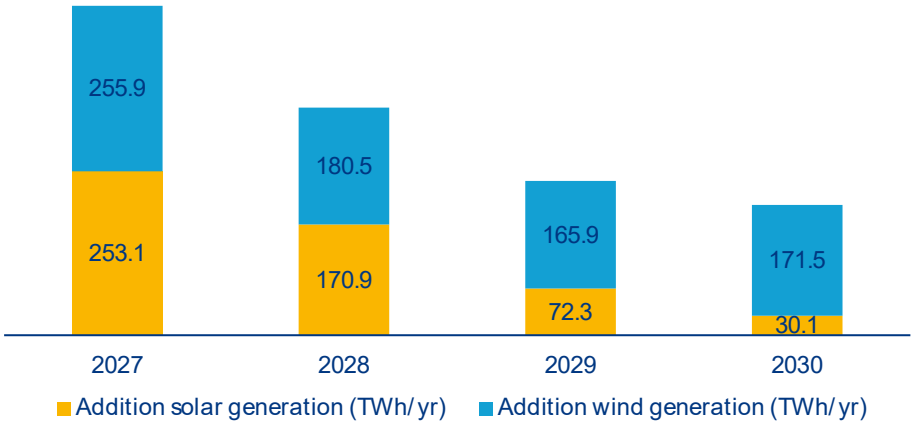
[48] Pricing, Attributes, and Blockers: Durable CDR Market Dynamics Through 2030 | CDR.fyi
[49] Swedish Energy Agency grants SEK 9.3 billion to store 5.75 million tonnes of biogenic carbon dioxide
[50] Independent review on greenhouse gas removals: government response - GOV.UK



Beyond Emissions: Assessing the economic impact of the renewable expansion

The dated pipeline of solar and wind projects adds substantial generation in 2027, but the annual increase slows markedly towards the end of the decade (Figure 32). We use projects in construction or pre-construction in the Global Energy Monitor trackers, converted to output with Ember capacity factors and assuming projects start on average mid-year. On this basis, annual wind and solar generation rises by 509 TWh/yr in 2027. The increment then falls to 351 TWh/yr in 2028, 238 TWh/yr in 2029 and 202 TWh/yr in 2030. The composition shifts sharply over the period. Solar and wind contribute almost equally in 2027, at 253 TWh/yr and 256 TWh/yr, respectively. By 2030, however, the solar increment falls to 30 TWh/yr, while wind remains broadly stable at 166–181 TWh/yr from 2028 onwards and accounts for 85% of the 2030 increase. This divergence largely reflects differences in project lead times rather than a slowdown in deployment: solar plants move from planning to operation relatively quickly, so few are yet dated beyond 2028, whereas wind projects, particularly offshore, are scheduled further in advance. The results should therefore be read as a dated inventory rather than an installation forecast. They exclude distributed solar and projects not yet dated, which will enter the pipeline over time, but also assume that all dated projects are completed on schedule.

Figure 32: Global development of solar and wind generation for the period 2027 – 2030 (TWh/yr)

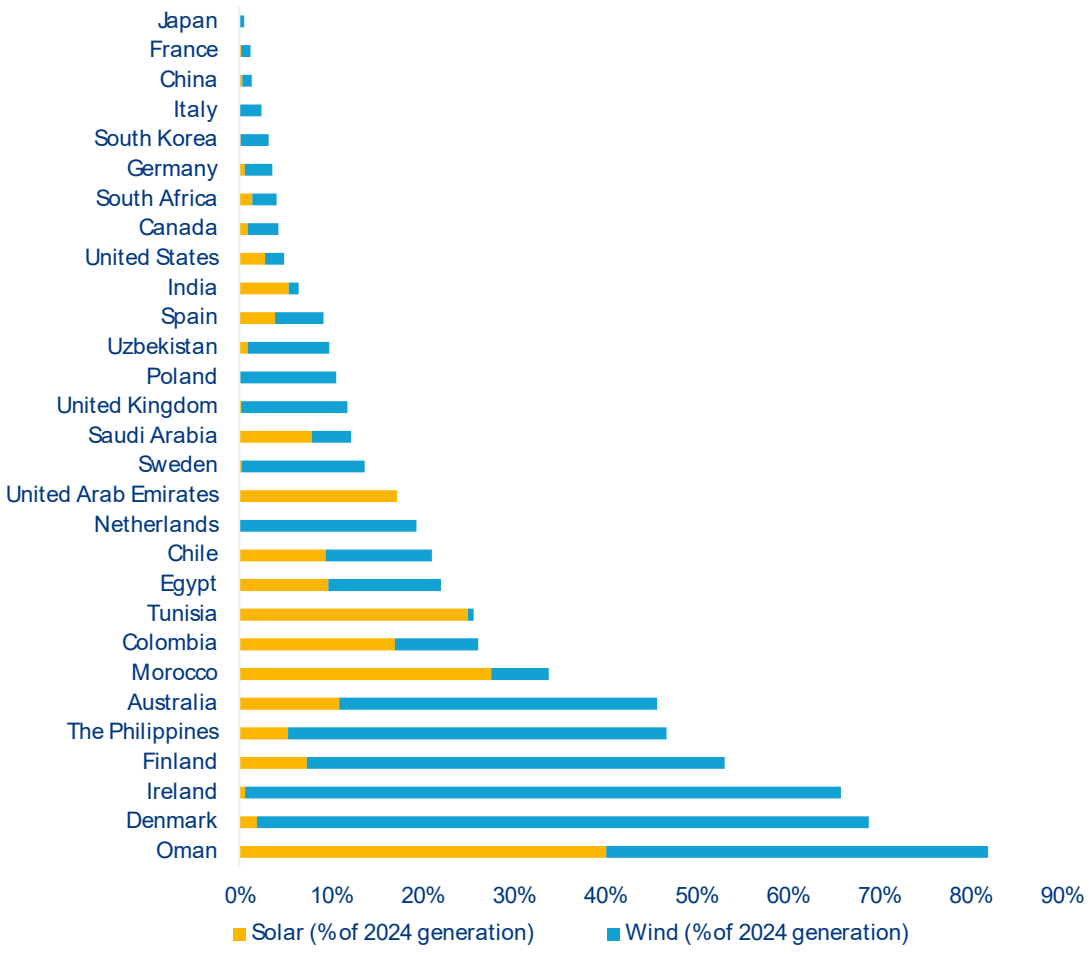


Sources: Global Energy Monitor, Allianz Research

The planned expansion is highly concentrated, with five countries accounting for half of the additional generation in the dated pipeline. Between 2027 and 2030, wind and solar additions sum to 1,300 TWh/yr worldwide, of which the United States, China, India, Australia and the Philippines together account for 52%, and the top ten for 69%. The United States leads with 215 TWh/yr, ahead of China (136 TWh/yr), India (132 TWh/yr) and Australia (129 TWh/yr). The technology mix differs markedly across these countries. Solar accounts for 83% of India's additions and 58% of those in the United States, whereas wind dominates in China (75%) and Australia (76%). China's comparatively modest solar figure should be interpreted carefully as much of its build-out, particularly distributed capacity, is not captured as dated utility-scale projects, so the pipeline understates its likely deployment.

Relative to the size of national power systems, the ranking changes substantially. Planned additions to annual wind and solar output equal 82% of total 2024 electricity generation in Oman, 69% in Denmark, 66% in Ireland and 53% in Finland, compared with 5% in the United States and 1% in China. These ratios compare the pipeline with the current size of each power system and should not be read as a forecast of demand. In Denmark, where wind and solar already supplied 69% of generation in 2024, delivering the full pipeline would require substantially higher demand, more exports or curtailment. The outlook calculations therefore limit each country's share increase to its historical pace, which keeps Denmark's wind and solar share below 100% by 2030. Regional patterns also reflect resource endowments. Wind dominates planned capacity additions in Northern Europe (United Kingdom, Denmark, Ireland and the Netherlands) accounting for over 95% of their respective pipelines. In the Gulf, by contrast, the United Arab Emirates' pipeline is entirely solar. Across the Middle East and North Africa, additions amount to 207 TWh/yr, or 14% of regional generation.

Figure 33: Additional annual wind and solar generation from the 2027 – 2030 pipeline, % of total 2024 electricity generation



Sources: Global Energy Monitor, Allianz Research

Renewable expansion can support economic activity through investment, lower generation costs and reduced fuel imports, but evidence of a sustained effect on GDP growth remains mixed. In the short to medium term, building new capacity stimulates demand. Batini et al. (2021) estimate output multipliers of 1.1–1.5 for renewable energy investment, against 0.5–0.6 for fossil-fuel investment, although these capture the effect of spending rather than of additional generation.[51] Model-based studies point to longer-term gains. On the supply side, the near-zero marginal cost of wind and solar tends to lower wholesale electricity prices (Halttunen et al., 2020), although the benefit for final consumers depends on retail pass-through and system-integration costs.[52]

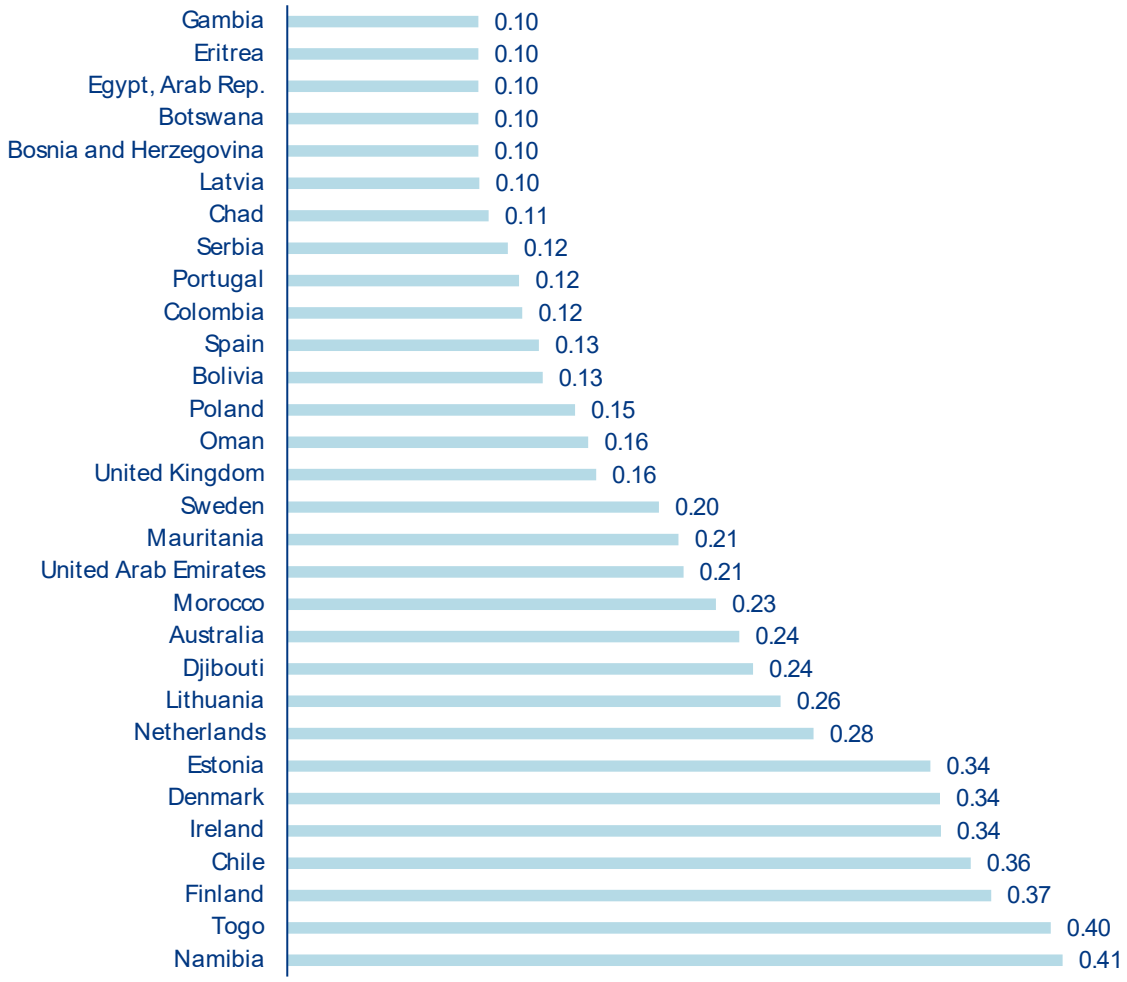
The econometric evidence is less conclusive. Panel studies of OECD countries report positive long-run relationships between renewable energy consumption and output. However, a replication and extension using the same data finds negative associations in almost all quantiles when renewables are measured as a share of total energy consumption (Dogan et al., 2020).[53] More broadly, Bruns, Gross and Stern (2014) show that apparent significant findings in the aggregate energy–growth literature can reflect overfitting and publication bias. They find robust Granger causality from output to aggregate energy use once energy prices are controlled for, but no comparably robust evidence in the reverse direction. Reverse causality therefore remains a central challenge, since stronger economic performance can itself drive renewable deployment.[54]

To translate the dated pipeline into growth effects, we combine it with a panel estimate of the historical relationship between the generation mix and GDP growth. We estimate how annual GDP per capita growth has moved with changes in the wind and solar share of electricity generation across 158 economies over 2003–2024, controlling for total electricity generation, level effects in the renewables share, and other country- and time-fixed effects. The regression holds total electricity generation per capita constant, so the estimate captures a shift in the generation mix rather than growth in electricity supply itself. We then apply this estimate to the change in each country's wind and solar share implied by the pipeline over 2027–2030. In this step, the pace of change is limited by each country's historical record and total generation is held at 2024 levels. The results should be read as a renewable development economic scenario rather than a forecast.

On this basis, the growth gains are modest and concentrated in smaller power systems undergoing rapid change in their generation mix (Figure 34). Across the 30 most positively affected countries, the model implies an average increase in GDP per capita growth of 0.21pp per year over 2027–2030, with a median of 0.18pp. Namibia (0.41pp), Togo (0.40pp), Finland (0.37pp) and Chile (0.36pp) lead the ranking, followed by Ireland, Denmark and Estonia at 0.34pp each. Countries with large pipelines relative to their systems gain less than their raw additions suggest, because the outlook limits each country's annual increase in the wind and solar share to its historical pace. The largest economies fall outside the top 30 because even substantial additions represent a small change in their generation mix. The full results are provided in Table A3.1 (Appendix A3).

[51] Building Back Better: How Big Are Green Spending Multipliers? | IMF Working Paper 2021/087.
[52] Global assessment of the merit-order effect and revenue cannibalisation for variable renewable energy | SSRN
[53] The impact of renewable energy consumption to economic growth: A replication and extension of - ScienceDirect
[54] Is There Really Granger Causality between Energy Use and Output? - Stephan B. Bruns, Christian Gross, David I. Stern, 2014

Figure 34: Model-implied impact of wind and solar additions on GDP growth, top 30 countries, average 2027 – 2030 (pp)[55]



Source: Allianz Research

Inflation effects are derived from a calibrated electricity-price channel. The calibration follows the direct path from the generation mix to consumer prices in three steps, each taken from published evidence:

- **Wholesale prices:** a higher wind and solar share lowers wholesale electricity prices through the merit-order effect (Halttunen et al., 2020). The effect is larger where penetration is still below 20%.
- **Household bills:** part of this reduction passes through to household electricity bills, approximated by the energy-and-supply component of the bill.
- **Consumer prices:** the change in electricity bills feeds into consumer prices according to electricity's weight in the CPI basket.

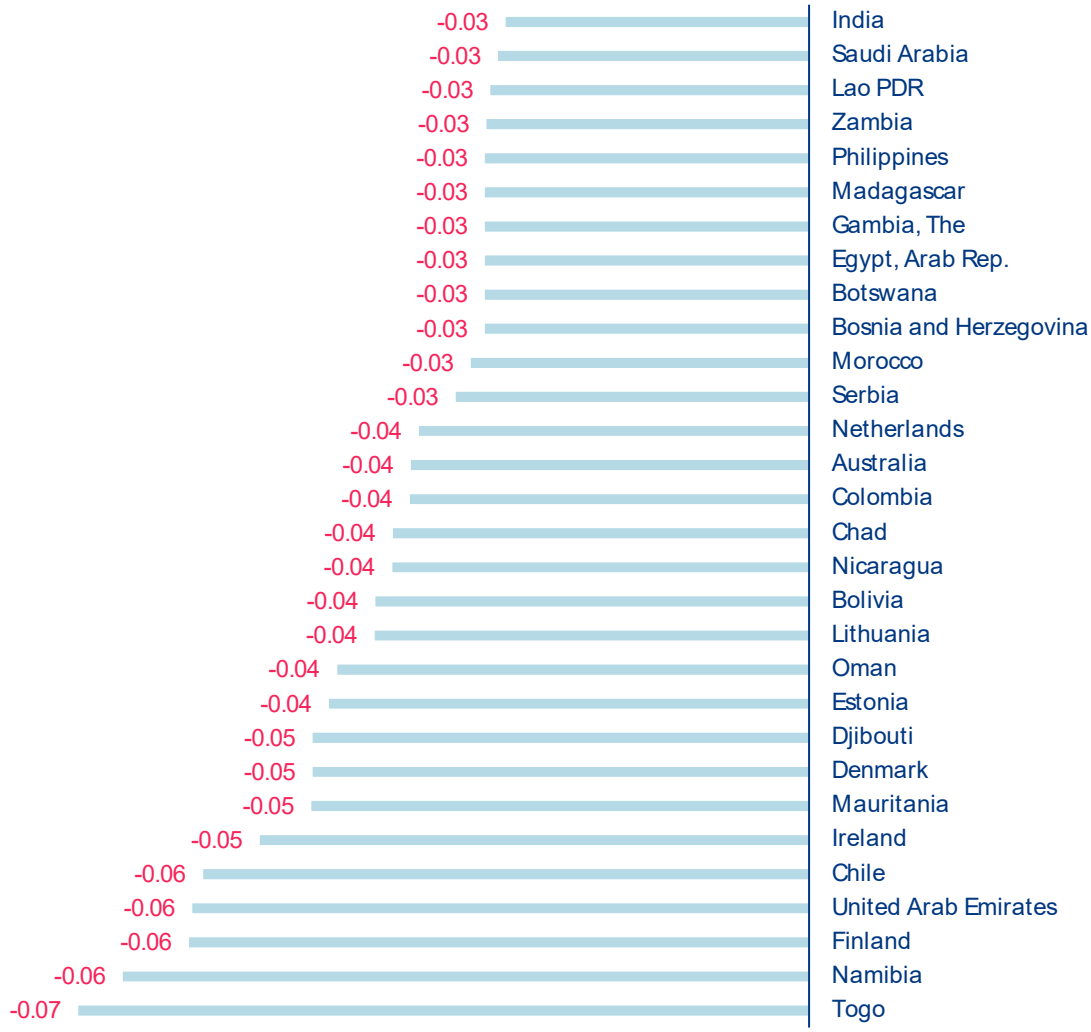
Half of each year's effect is assumed to materialize in the year of the change and half in the following year.[56] We apply this mapping to the same pipeline-implied share changes as in the growth scenario. The reference prices and pass-through assumptions are European benchmarks applied uniformly across countries, and indirect effects through business costs or gas-price exposure are excluded.

The implied disinflationary effect is small, and largest where wind and solar still account for a low share of generation (Figure 35). Across the 30 most affected countries, the calibration implies an average reduction in CPI inflation of about 0.04pp per year over 2027–2030, with a median of the same magnitude. Togo (–0.07pp),

[55] Panel regression of GDP per capita growth on the change in the wind and solar share of generation, controlling for total generation per capita and lagged growth, with country and year fixed effects (158 economies, 2003–2024). The coefficient of 0.057 is not statistically significant (p = 0.35; 95% CI –0.063 to 0.177); the results apply the point estimate for illustration only.
[56] This is a simplifying assumption, as the exact commissioning date of new generation capacity is unknown.

Namibia, Finland, the United Arab Emirates and Chile (–0.06pp each) lead the ranking. Ireland, Mauritania, Denmark and Djibouti follow at –0.05pp. Cumulated over the four years, this amounts to a price level about 0.16pp lower by 2030 for the average country in this group. The full table of results is provided in Table A3.2 (Appendix A3).

Figure 35: Model-implied impact of wind and solar additions on CPI inflation, top 30 countries, average 2027 – 2030 (pp)



Source: Allianz Research



Transition Outlook: Drivers and barriers shaping emissions to 2030

Lower clean-technology costs and higher fossil-fuel prices are strengthening the case for electrification, but the durability of these incentives remains uncertain. Oil supply disruptions are expected to reduce global oil demand by 2.4 million barrels per day (mb/d), or 2.6%, in 2026, while the global share of battery electric vehicles in new car registrations increased from 18.1% in Q3 2025 to 21.8% in Q3 2026.[57] At the same time, declining costs of solar PV and battery storage, partially driven by overcapacity in China, continue to improve the competitiveness of low-carbon alternatives. Sustained high fossil-fuel prices could accelerate electrification and reduce dependence on imported energy. However, a reversal in prices, combined with persistent fossil-fuel subsidies, could weaken these incentives. This risk is illustrated by Europe, where fossil-fuel subsidies remain around 70% above pre-2022 levels.[58] Further clean-technology cost declines are also not guaranteed: thin manufacturer margins, trade restrictions and critical-mineral constraints could slow improvements in affordability.

Investment remains resilient, but financing conditions, trade fragmentation and policy uncertainty could slow deployment. Global clean-energy investment is projected to remain strong at USD2.2trn in 2026, up +6.5% from 2025 levels, despite a slight decline in renewable-energy spending. This indicates continued momentum behind the transition, although inflation and high interest rates may slow deployment by raising financing costs, particularly in emerging economies. Over the longer term, falling technology costs, electrification and energy-security concerns continue to support clean-energy investment, but high borrowing costs and constrained public budgets could limit its pace. Meanwhile, geopolitical fragmentation threatens to erode the cost advantages of clean technologies. Although increased domestic production and shifting trade patterns partly offset tariff-related cost increases in 2025, the rebound in critical-mineral prices in 2025 and early 2026 could put renewed upward pressure on battery costs, while export controls pose additional supply-chain risks. Regulatory developments may also weaken investment incentives, as delayed EU ETS2 implementation, proposed changes to the post-2030 emissions-trading framework and reduced US clean-energy support create policy uncertainty. China's and India's climate commitments also leave room for absolute emissions growth, limiting the extent to which announced targets translate into near-term reductions.

[57] Oil Market Report - October 2026 - IEA and EV Sales Data Tracker | Ember
[58] Fossil Fuel Subsidies Tracker

Table 1: Drivers and barriers of transition progress

Area	Short-term rationale	Long-term rationale	Short term	Long term
Technology costs & overcapacity	Overcapacity and price competition keep solar and battery prices falling, partly offsetting tariffs and rebounding mineral prices.	Cost declines support adoption, but thin manufacturer margins, trade defence and mineral constraints could slow further falls.	↗	↗
Fossil fuel prices & energy security	Higher fossil prices drive demand reduction and incentivise switching to clean technologies.	Sustained high prices strengthen the economic and security case for electrification. Once prices fall, sticky subsidies and coal lock-ins could worsen the long-term case.	↗	→
Growth, investment & financing	Clean investment is resilient (USD2.2trn vs USD1.2trn fossil), though renewables spending dips slightly in 2026. Higher inflation and interest rates raise financing costs, which weigh most on capital-intensive clean projects.	Falling costs, electrification and energy security keep pulling investment up, but persistently high rates and tighter budgets could slow the pace, especially in emerging markets.	→	↗
Geopolitical fragmentation & trade barriers	Tariff costs so far cushioned by local production and cheap battery materials in 2025; mineral prices have since rebounded and export controls are the emerging risk.	Higher, more volatile equipment costs and critical mineral bottlenecks raise the cost of the transition, especially for capital-intensive clean tech.	→	↘
Regulatory changes & ambition	Limited immediate change: EU carbon prices are stable and the 2040 target stands, though ETS2 is delayed and the US has left the Paris Agreement and ended clean-energy tax credits.	Despite the binding EU 2040 target, ambition is likely to slow: the EU proposes easing carbon-market tightening after 2030, the US is unlikely to tighten climate rules, and China's and India's targets don't cap total emissions.	→	↘
AI & power demand	Data-center demand grows faster than clean supply in some markets, raising emissions and gas build-out.	AI efficiency gains could outweigh its footprint, but only if grids decarbonise and applications scale.	↘	↗
Grids & permitting	Grid connection queues and permitting delays slow new clean supply and increase curtailment.	Grid and storage investment is rising, but whether it keeps pace with electrification and data-centre demand is the key uncertainty.	↘	→
Physical climate & El Niño	Record El Niño is likely to raise cooling demand, weaken hydropower in some regions and increase fossil generation and wildfire emissions.	El Niño passes, but climate change intensifies the same stresses over time, raising costs and straining budgets, even as it adds political urgency.	↘	↘

Source: Allianz Research

Rising electricity demand and infrastructure bottlenecks pose the greatest risk to near-term emissions reductions. Rapidly growing demand from AI and data centers is putting pressure on power systems, potentially increasing global emissions by around 0.6% by 2030.[59] If clean electricity supply fails to keep pace, this additional demand could increase reliance on fossil-fuel generation, particularly gas. Grid congestion and permitting delays further compound these risks by slowing renewable deployment and increasing curtailment. Over time, however, growing electricity demand could also stimulate investment in grids and storage, while AI-enabled efficiency improvements could potentially reduce emissions by up to 2.6% by 2035[60]. Whether AI ultimately increases or reduces emissions will depend on the carbon intensity of electricity supply and the scale of efficiency gains. Physical climate risks add further uncertainty: a developing El Niño could increase cooling demand, disrupt hydropower generation and temporarily raise fossil-fuel use. More frequent extreme weather events will also increase pressure on energy infrastructure and public budgets.

Overall, 2026 could mark an important step toward a global emissions peak, but a sustained decline is not yet assured. Global greenhouse gas emissions are expected to remain broadly stable, while fossil fuel CO_2 emissions are projected to decline by around 0.5%, marking their first annual decrease since 2020.[61] This is driven in part by higher fossil-fuel prices and the deployment of clean energy, which are helping to offset growing energy demand. However, a single year of declining emissions would not establish a structural turning point. Sustained reductions through 2030 will depend on whether renewable deployment, grid expansion and electrification can outpace demand growth and progressively displace fossil fuels across the wider economy.

[59] Code, carbon, kilowatts: AI's hidden toll and the race to green the grid | Allianz
[60] AI and climate change - Energy and AI - IEA
[61] Analysis: Global fossil-fuel emissions set to fall in 2026 amid Hormuz crisis - Carbon Brief

Appendix

A1 – Transition scores

Table A1.1: Progress Score[62]

Rank	Region	Carbon Intensity	Energy Intensity	Consumption Emissions	Territorial Emissions	Low Carbon Share	Final Score	Score Change	Rank Change
1	Luxembourg	47.31	100.00	33.20	36.70	88.82	61.21	▲ 2.2	—
2	Denmark	48.05	100.00	11.16	23.43	85.42	53.61	▲ 5.8	—
3	Estonia	56.57	55.47	29.64	49.82	53.10	48.92	▲ 5.8	▲ 2
4	Portugal	40.55	91.53	11.94	34.57	64.68	48.65	▲ 0.9	▼ 1
5	Ireland	61.47	100.00	17.60	25.23	27.42	46.35	▲ 3.4	▲ 1
6	Norway	29.47	45.25	33.32	24.13	95.85	45.60	▲ 6.0	▲ 3
7	United Kingdom	40.34	94.75	22.67	30.74	35.06	44.71	▲ 1.8	—
8	Switzerland	35.98	100.00	31.05	24.24	27.38	43.73	▼ 2.9	▼ 4
9	Lithuania	39.51	100.00	0.00	3.15	64.07	41.35	▲ 0.7	▼ 1
10	Finland	29.53	19.94	17.62	34.60	87.05	37.75	▲ 4.0	▲ 4
11	Netherlands	42.37	54.08	11.52	34.33	45.75	37.61	▲ 1.7	▼ 1
12	Germany	35.30	72.44	16.31	30.31	26.54	36.18	▲ 2.4	▲ 1
13	Latvia	26.80	100.00	0.00	5.82	47.74	36.07	▲ 1.1	▼ 2
14	Bulgaria	43.33	51.64	6.75	29.04	45.13	35.18	▲ 3.2	▲ 2
15	Sweden	23.00	41.15	17.15	18.74	72.82	34.57	▲ 2.1	—
16	Romania	37.59	100.00	0.00	8.80	24.01	34.08	▲ 0.2	▼ 4
17	Spain	33.86	48.17	11.20	22.78	43.80	31.96	▲ 0.7	—
18	Israel	36.11	61.61	11.70	30.20	15.47	31.02	▲ 6.2	▲ 9
19	Austria	26.17	60.26	17.07	20.19	29.96	30.73	▲ 1.0	▼ 1
20	Czechia	38.60	47.01	9.75	30.55	27.62	30.71	▲ 4.1	▲ 1
21	France	31.34	47.89	8.88	23.10	39.51	30.15	▲ 2.4	▼ 1
22	Italy	29.35	78.23	4.97	14.78	16.46	28.76	▲ 2.4	—
23	New Zealand	32.74	31.29	8.81	21.14	44.58	27.71	▲ 3.6	▲ 9
24	Slovenia	36.35	54.49	0.00	9.54	34.27	26.93	▲ 2.6	▲ 5
25	Hungary	34.76	50.02	2.39	12.12	34.50	26.76	▲ 2.0	▲ 2
26	Poland	38.68	58.60	5.23	9.37	20.46	26.47	▲ 2.3	▲ 4
27	Belgium	30.36	36.31	6.71	19.97	38.59	26.39	▲ 1.2	▼ 3
28	Greece	35.76	34.04	7.91	26.19	26.65	26.11	▲ 1.2	▼ 3
29	Cyprus	36.23	65.47	3.69	5.81	18.02	25.84	▲ 1.3	▼ 1
30	Bangladesh	25.79	100.00	0.00	0.00	0.77	25.31	▼ 0.3	▼ 8
31	Colombia	10.83	55.26	13.72	9.94	36.73	25.30	▲ 16.5	▲ 23
32	Sri Lanka	9.84	100.00	0.00	0.00	14.97	24.96	▼ 0.4	▼ 9
33	Slovakia	29.99	34.27	8.60	15.89	28.40	23.43	▲ 1.8	▲ 1
34	Australia	23.85	33.66	14.20	15.51	28.97	23.24	▲ 2.2	▲ 1
35	Egypt	25.17	66.69	15.31	2.66	4.89	22.94	▲ 2.6	▲ 1
36	Croatia	24.95	60.07	0.00	0.00	29.50	22.90	▲ 0.8	▼ 4
37	Brazil	8.47	15.53	19.77	13.35	53.80	22.18	▲ 0.1	▼ 4
38	Japan	25.40	32.43	11.78	19.28	20.69	21.92	▲ 2.6	▼ 1
39	Pakistan	12.24	51.67	0.00	0.00	38.23	20.43	▲ 2.2	—
40	Chile	16.78	15.78	8.32	12.28	41.50	18.93	▲ 0.1	▼ 2
41	United States	26.51	30.54	8.87	13.59	14.96	18.89	▲ 1.2	▼ 1
42	Canada	16.56	24.80	19.21	18.11	0.00	15.74	▲ 1.7	▼ 1
43	China	29.69	28.39	0.00	0.00	19.84	15.58	▲ 2.3	▼ 1
44	Ecuador	13.91	0.00	4.20	0.14	59.03	15.45	▲ 2.8	—
45	India	24.22	37.47	0.00	0.00	11.12	14.56	▲ 4.5	▲ 5
46	Argentina	4.65	18.68	14.23	15.39	18.56	14.30	▲ 4.4	▲ 7
47	South Africa	16.62	9.74	16.83	14.92	11.29	13.88	▲ 1.3	▼ 2
48	Türkiye	17.96	34.19	0.00	0.00	16.85	13.80	▼ 2.4	▼ 7
49	South Korea	25.61	22.03	0.00	9.32	10.74	13.54	▲ 0.9	▼ 5
50	Thailand	17.39	30.13	0.00	4.98	9.67	12.43	▲ 2.5	▲ 3
51	Malaysia	22.45	26.70	0.00	0.00	11.74	12.18	▲ 1.6	▼ 3
52	Belarus	15.86	0.00	0.00	1.72	39.92	11.50	▲ 1.0	▼ 3
53	Mexico	4.84	23.45	8.00	11.23	8.35	11.17	▲ 0.7	▼ 3
54	Singapore	21.13	31.05	0.00	0.00	2.68	10.97	▲ 0.9	▼ 2
55	Kazakhstan	5.40	0.00	24.48	16.90	5.13	10.38	▼ 1.2	▼ 8
56	Philippines	11.60	35.44	0.00	0.00	0.00	9.41	▲ 5.8	▲ 2
57	Vietnam	14.59	0.00	0.00	0.00	16.33	6.19	▲ 1.9	—
58	Peru	3.90	0.00	0.00	0.00	23.58	5.50	▲ 2.1	▲ 1
59	Oman	0.00	0.00	10.20	3.53	4.59	3.66	▲ 0.8	▲ 2
60	Morocco	7.04	0.00	0.00	0.00	8.59	3.13	▲ 0.0	—
61	Qatar	0.00	10.36	0.98	0.00	3.72	3.01	▼ 1.9	▼ 5
62	Kuwait	0.00	0.00	10.63	0.00	2.33	2.59	▲ 0.0	—
63	Azerbaijan	5.66	0.00	0.00	0.00	3.98	1.93	▼ 0.3	—
64	Indonesia	0.00	0.00	0.00	0.00	0.00	0.00	—	▲ 1
64	Iran	0.00	0.00	0.00	0.00	0.00	0.00	▼ 0.4	—

[62] Progress Scores reflect the 2015 implementation gap, with smaller initial gaps amplifying the impact of minor changes. This partly explains Switzerland's deterioration and Norway's large improvements..

Table A1.2: Peer Score

Rank	Region	Carbon Intensity	Energy Intensity	Consumption Emissions	Territorial Emissions	Low Carbon Share	Final Score	Rank Change
1	Sri Lanka	87.0	100.0	85.8	91.8	51.6	83.2	—
2	Colombia	71.2	96.3	86.6	84.4	74.4	82.6	▲ 1
3	Portugal	85.0	98.2	69.2	69.8	79.5	80.3	▼ 1
4	Sweden	90.1	78.5	59.7	67.2	99.7	79.0	—
5	Peru	73.8	90.2	84.2	81.6	59.9	78.0	—
6	France	87.4	80.6	59.0	64.9	95.3	77.4	▲ 2
7	Romania	83.5	100.0	71.9	67.3	64.4	77.4	▼ 1
8	Denmark	90.6	100.0	42.5	56.6	94.5	76.9	▲ 2
9	Brazil	55.8	74.3	85.0	79.5	88.3	76.6	▼ 2
10	Pakistan	45.7	85.9	94.3	94.0	57.0	75.4	▼ 1
11	Ecuador	61.7	72.1	81.5	77.1	77.8	74.0	▲ 5
12	Latvia	79.5	100.0	51.0	68.5	71.1	74.0	▲ 3
13	Lithuania	81.0	100.0	50.7	60.4	75.9	73.6	▼ 1
14	Switzerland	94.0	100.0	7.7	67.6	98.5	73.6	▲ 3
15	Bangladesh	78.5	100.0	93.7	94.8	0.0	73.4	▼ 1
16	Norway	86.9	88.6	51.3	38.8	99.9	73.1	▼ 5
17	Spain	84.3	87.0	62.9	58.8	72.4	73.1	▼ 4
18	Croatia	78.3	93.0	57.7	56.4	74.4	71.9	—
19	Hungary	80.3	82.8	59.3	61.8	73.1	71.5	▲ 2
20	United Kingdom	87.1	98.9	50.9	58.8	60.5	71.2	▼ 1
21	Philippines	69.7	89.8	87.6	86.6	14.3	69.6	▲ 1
22	Chile	73.5	78.2	69.2	63.7	63.0	69.5	▼ 2
23	Austria	84.4	94.1	42.1	43.7	82.6	69.4	—
24	Slovakia	76.6	67.0	55.5	50.9	84.3	66.9	▲ 1
25	Egypt	73.4	92.1	85.1	80.1	2.6	66.6	▼ 1
26	Italy	85.5	97.0	49.8	53.2	43.2	65.7	▲ 1
27	Finland	79.4	54.4	41.2	51.5	97.0	64.7	▲ 3
28	Ireland	90.7	100.0	46.9	43.4	41.9	64.6	▲ 1
29	Bulgaria	69.8	63.8	62.3	55.1	69.3	64.1	▲ 4
30	Slovenia	78.8	81.9	35.6	45.1	76.6	63.6	▲ 2
31	India	57.7	73.4	88.1	80.2	18.0	63.5	—
32	Morocco	56.0	73.0	87.6	83.8	14.2	62.9	▼ 5
33	Argentina	60.3	78.3	72.1	65.9	35.0	62.3	—
34	Luxembourg	90.2	100.0	23.8	4.3	91.5	62.0	▲ 2
35	Germany	83.4	92.8	36.2	37.1	54.1	60.7	▲ 4
36	Vietnam	49.4	64.8	83.3	66.6	39.2	60.6	▼ 1
37	Greece	75.3	76.2	55.5	53.1	41.9	60.4	▼ 3
38	Türkiye	73.5	82.9	61.0	45.0	36.9	59.9	▼ 7
39	Netherlands	84.8	78.8	41.9	41.5	49.2	59.3	▲ 2
40	Mexico	64.9	72.2	70.1	68.0	17.3	58.5	▼ 2
41	Indonesia	54.5	73.1	82.4	74.1	5.8	58.0	▼ 2
42	Cyprus	76.2	86.1	55.8	50.8	16.3	57.0	—
43	New Zealand	59.4	47.5	45.0	43.7	88.1	56.8	—
44	Czechia	73.4	69.9	36.3	36.4	54.9	54.2	▲ 3
45	Thailand	64.2	61.6	70.8	66.0	6.7	53.8	▼ 1
46	Israel	79.4	87.7	38.0	51.9	7.1	52.8	▲ 3
47	Estonia	65.3	60.8	36.5	44.5	55.6	52.5	▲ 3
48	Azerbaijan	64.0	61.6	72.4	64.4	0.0	52.5	▼ 3
49	Poland	71.6	82.9	48.5	31.5	23.3	51.5	▼ 1
50	Belgium	81.4	67.1	0.0	33.8	72.3	50.9	▼ 4
51	Japan	74.6	70.7	36.5	28.7	24.9	47.1	—
52	Belarus	52.7	33.5	53.0	44.0	33.3	43.3	—
53	Malaysia	62.2	45.2	43.6	25.0	11.0	37.4	—
54	China	33.4	23.1	46.8	19.8	34.4	31.5	—
55	United States	67.6	49.9	0.0	0.0	36.6	30.8	—
56	Canada	53.6	13.0	10.0	0.0	75.0	30.3	—
57	Australia	49.8	56.2	3.2	0.0	31.7	28.2	▲ 1
58	Singapore	89.4	30.4	0.0	17.8	0.0	27.5	▼ 1
59	South Korea	65.7	25.6	5.0	0.0	33.1	25.9	—
60	South Africa	12.6	0.0	64.6	36.9	8.1	24.4	—
61	Kazakhstan	33.3	34.7	27.6	0.0	4.7	20.1	—
62	Iran	0.0	0.0	49.1	20.4	0.0	13.9	—
63	Qatar	24.7	0.0	0.0	0.0	0.0	4.9	—
64	Oman	0.0	0.0	0.0	0.0	0.0	0.0	—
64	Kuwait	0.0	0.0	0.0	0.0	0.0	0.0	▲ 1

Table A1.3: Change of Progress Score

Region	Carbon Intensity	Energy Intensity	Consumption Emissions	Territorial Emissions	Low Carbon Share	Final Score
Luxembourg	+2.9	–	+7.5	-0.8	+1.2	+2.2
Denmark	+5.9	–	+6.4	+1.7	+14.9	+5.8
Estonia	+2.3	+6.1	+12.9	+2.8	+5.0	+5.8
Portugal	+0.2	+0.4	+7.7	+4.7	-8.4	+0.9
Ireland	+7.7	–	+5.9	+1.8	+1.7	+3.4
Norway	-0.3	-3.5	-6.4	+4.2	+35.8	+6.0
United Kingdom	+1.7	+5.7	+3.6	-0.4	-1.4	+1.8
Switzerland	+1.1	–	+5.2	+0.8	-21.9	-2.9
Lithuania	+5.3	+9.2	–	+0.3	-11.1	+0.7
Finland	-0.4	+0.9	+9.7	+5.0	+5.0	+4.0
Netherlands	-1.0	+1.9	+5.2	+1.7	+0.6	+1.7
Germany	+0.4	+0.8	+7.8	+2.8	+0.3	+2.4
Latvia	+2.0	+2.6	–	+1.0	+0.0	+1.1
Bulgaria	+0.2	+1.1	+6.8	+6.5	+1.6	+3.2
Sweden	+1.9	+6.2	+6.7	-2.8	-1.8	+2.1
Romania	+1.3	–	–	-1.0	+0.9	+0.2
Spain	+0.6	+1.4	+7.3	-0.9	-4.8	+0.7
Israel	+4.8	+8.7	+9.4	+4.8	+3.2	+6.2
Austria	-0.2	+7.5	+8.2	+1.2	-11.8	+1.0
Czechia	+1.2	-0.4	+9.8	+7.3	+2.7	+4.1
France	+2.4	+1.0	+7.1	+2.0	-0.4	+2.4
Italy	+2.4	+4.1	+5.0	+2.9	-2.2	+2.4
New Zealand	+1.6	-0.9	+4.8	-0.9	+13.5	+3.6
Slovenia	+4.4	+6.4	–	-5.0	+7.3	+2.6
Hungary	+2.4	-0.1	+2.4	+0.4	+4.7	+2.0
Poland	+2.0	+0.9	+5.2	+3.1	+0.1	+2.3
Belgium	-0.3	+5.2	+5.8	-0.2	-4.4	+1.2
Greece	+1.7	+3.0	+5.5	-1.9	-2.1	+1.2
Cyprus	+1.1	+0.9	+3.7	-0.5	+1.4	+1.3
Bangladesh	-1.9	–	–	–	+0.2	-0.3
Colombia	+7.6	+39.2	+0.5	-1.7	+36.7	+16.5
Sri Lanka	-1.1	–	–	-5.3	+4.3	-0.4
Slovakia	+0.7	-0.3	+6.9	+4.8	-3.4	+1.8
Australia	+2.7	+2.3	+0.4	+1.2	+4.3	+2.2
Egypt	+1.7	+4.4	+6.5	-1.5	+2.0	+2.6
Croatia	-0.8	-4.4	–	–	+9.2	+0.8
Brazil	+3.1	+0.6	-0.5	+0.5	-3.2	+0.1
Japan	+2.2	+3.2	+4.1	+1.8	+1.7	+2.6
Pakistan	+0.7	+3.0	–	–	+7.4	+2.2
Chile	-0.8	+3.7	+5.0	-0.8	-6.6	+0.1
United States	-0.1	+0.3	+3.0	+1.1	+1.7	+1.2
Canada	-0.2	+0.3	+3.9	+4.4	–	+1.7
China	+3.6	+3.1	–	–	+4.7	+2.3
Ecuador	+4.8	–	-2.8	-2.2	+14.5	+2.8
India	+6.3	+11.0	–	–	+5.1	+4.5
Argentina	+4.5	+13.5	-0.6	+4.0	+0.5	+4.4
South Africa	+2.6	+1.8	-0.7	+0.4	+2.4	+1.3
Türkiye	-0.5	-2.0	-5.8	–	-3.5	-2.4
South Korea	+0.4	+3.2	–	+0.9	+0.1	+0.9
Thailand	+3.2	+8.5	–	-1.1	+1.9	+2.5
Malaysia	+2.5	+4.6	–	–	+0.7	+1.6
Belarus	+2.7	–	–	-0.6	+2.9	+1.0
Mexico	-0.2	+2.4	-0.4	+0.2	+1.7	+0.7
Singapore	+2.1	+5.4	–	-3.3	+0.6	+0.9
Kazakhstan	+1.4	–	-8.0	+0.8	-0.4	-1.2
Philippines	+6.7	+22.4	–	–	–	+5.8
Vietnam	+4.6	–	–	–	+4.7	+1.9
Peru	+3.0	–	–	–	+7.6	+2.1
Oman	–	–	+3.6	+1.0	-0.3	+0.8
Morocco	+1.5	-0.0	–	–	-1.4	+0.0
Qatar	–	+5.6	-14.9	–	-0.0	-1.9
Kuwait	–	–	+0.1	–	+0.1	+0.0
Azerbaijan	+2.8	–	-2.9	–	-1.2	-0.3
Indonesia	–	–	–	–	–	–
Iran	–	–	-0.7	–	-1.2	-0.4

Source: Allianz Research

A2 – Transition score methodology

Net Zero Targets

The 2050 Net Zero benchmarks for each indicator are based on the global-average pathways in the NGFS Phase 5 Net Zero 2050 scenario. They provide a common reference point for both the Peer Score and the Transition Progress Score.

Transition *Peer Score*

Peer scores measure how far a country's current performance (C) is from its 2050 Net Zero target (NZ), benchmarked against the worst-performing peers for the same indicator. The score is normalized on a scale from 0 to 100, where:

- 0 represents the performance of the worst peers, and
- 100 represents achievement of the Net Zero target

Case 1: Lower values are better (LB)

Applies to: Carbon intensity, energy intensity, territorial emissions per capita and consumption emissions per capita. For indicators where a lower value means better performance, the Peer Score is benchmarked against the 90th percentile of the worst performers (W_{90}) and calculated as

$$Peer\ Score\ (LB) = \begin{cases} 0, & if\ C \geq W_{90} \\ \left[1 - \frac{C - NZ}{W_{90} - NZ}\right] * 100, & if\ NZ < C < W_{90} \\ 100, & if\ \ C \leq NZ \end{cases}$$

Case 2: Higher values are better (HB)

Applies to: Low-carbon power share.

For indicators where a higher value means better performance, the *Peer Score* is benchmarked against the worst performer (*W*) and calculated as

$$Peer\ Score\ (HB) = \begin{cases} 0, & if\ C \leq W \\ \left[1 - \frac{NZ - C}{NZ - W}\right] * 100, & if\ W < C < NZ \\ 100, & if\ \ C \geq NZ \end{cases}$$

Transition *Progress Score*

Progress Scores measure how much a country has advanced toward its 2050 Net Zero target (*NZ*) relative to its own 2015 baseline (C_{2015}). They assess in-country improvement over time, rather than performance compared to peers. Scores are expressed on a 0–100 scale, where:

- 0 means no improvement since 2015 (or regression), and
- 100 means the 2050 target has been achieved or surpassed.

Case 1: *Lower values are better (LB)*

$$Progress\ Score\ (LB) = \begin{cases} 0, & if\ C \geq C_{2015}\ and\ C > NZ \\ \left[1 - \dfrac{C - NZ}{C_{2015} - NZ}\right] * 100, & if\ NZ < C < C_{2015} \\ 100, & if\ \ C \leq NZ \end{cases}$$

Case 2: *Higher values are better (HB)*

$$Progress\ Score\ (HB) = \begin{cases} 0, & if\ C \leq C_{2015}\ and\ C < NZ \\ \left[1 - \dfrac{NZ - NZ}{NZ - C_{2015}}\right] * 100, & if\ C_{2015} < C < NZ \\ 100, & if\ \ C \geq NZ \end{cases}$$

A3 – Country-level economic outlook 2027 – 2030

Table A3.1 : Country-level per capita GDP growth outlook associated with renewable development (2027 – 2030)

Country	2027	2028	2029	2030	Average
Namibia	0.41	0.41	0.41	0.40	0.41
Togo	0.37	0.41	0.41	0.41	0.40
Finland	0.37	0.37	0.37	0.37	0.37
Chile	0.36	0.36	0.36	0.34	0.36
Ireland	0.35	0.35	0.31	0.35	0.34
Denmark	0.29	0.26	0.41	0.41	0.34
Estonia	0.12	0.41	0.41	0.41	0.34
Netherlands	0.11	0.19	0.41	0.41	0.28
Lithuania	0.41	0.21	0.00	0.41	0.26
Djibouti	0.41	0.41	0.16	0.00	0.24
Australia	0.24	0.24	0.24	0.24	0.24
Morocco	0.23	0.23	0.23	0.23	0.23
United Arab Emirates	0.21	0.21	0.21	0.21	0.21
Mauritania	0.00	0.00	0.41	0.41	0.21
Sweden	0.11	0.18	0.20	0.29	0.20
United Kingdom	0.08	0.10	0.18	0.29	0.16
Oman	0.16	0.16	0.16	0.16	0.16
Poland	0.12	0.22	0.16	0.10	0.15
Bolivia	0.13	0.13	0.13	0.13	0.13
Spain	0.24	0.12	0.09	0.08	0.13
Colombia	0.12	0.12	0.12	0.12	0.12
Portugal	0.17	0.02	0.00	0.30	0.12
Serbia	0.12	0.12	0.12	0.12	0.12
Chad	0.18	0.18	0.06	0.00	0.11
Latvia	0.23	0.17	0.00	0.00	0.10
Bosnia and Herzegovina	0.10	0.10	0.10	0.10	0.10
Botswana	0.10	0.10	0.10	0.10	0.10
Egypt, Arab Rep.	0.10	0.10	0.10	0.10	0.10
Eritrea	0.10	0.10	0.10	0.10	0.10
Gambia	0.10	0.10	0.10	0.10	0.10
Madagascar	0.10	0.10	0.10	0.10	0.10
Philippines	0.10	0.10	0.10	0.10	0.10
Saudi Arabia	0.10	0.10	0.10	0.10	0.10
Tunisia	0.10	0.10	0.10	0.10	0.10
Zambia	0.10	0.10	0.10	0.10	0.10
India	0.10	0.10	0.10	0.09	0.10
Lao PDR	0.10	0.10	0.10	0.09	0.10
Nicaragua	0.32	0.07	0.00	0.00	0.10
Croatia	0.29	0.04	0.00	0.00	0.08
Romania	0.22	0.10	0.02	0.00	0.08
Mali	0.10	0.10	0.10	0.01	0.08
Uzbekistan	0.16	0.14	0.00	0.00	0.07
Peru	0.10	0.10	0.09	0.00	0.07
Belgium	0.01	0.07	0.07	0.14	0.07
United States	0.11	0.11	0.04	0.02	0.07
Eswatini	0.13	0.13	0.00	0.00	0.07

Country	2027	2028	2029	2030	Average
Dominican Republic	0.16	0.09	0.00	0.00	0.06
Canada	0.12	0.05	0.04	0.03	0.06
South Africa	0.08	0.04	0.07	0.04	0.06
Albania	0.03	0.06	0.03	0.11	0.06
Jordan	0.00	0.00	0.11	0.11	0.06
Germany	0.10	0.06	0.04	0.01	0.05
Korea, Rep.	0.03	0.04	0.06	0.06	0.05
Ecuador	0.10	0.07	0.00	0.00	0.04
Panama	0.10	0.06	0.00	0.00	0.04
Algeria	0.07	0.04	0.04	0.00	0.04
Zimbabwe	0.10	0.05	0.00	0.00	0.04
Guatemala	0.08	0.05	0.02	0.00	0.04
Greece	0.09	0.05	0.00	0.00	0.04
Kuwait	0.07	0.07	0.00	0.00	0.04
Costa Rica	0.07	0.07	0.00	0.00	0.04
Bulgaria	0.10	0.04	0.00	0.00	0.04
Italy	0.06	0.06	0.01	0.00	0.03
Burkina Faso	0.10	0.04	0.00	0.00	0.03
New Zealand	0.10	0.03	0.00	0.00	0.03
Yemen, Rep.	0.12	0.00	0.00	0.00	0.03
Azerbaijan	0.09	0.03	0.00	0.00	0.03
Malaysia	0.06	0.06	0.00	0.00	0.03
Cyprus	0.00	0.05	0.05	0.00	0.03
Lesotho	0.00	0.00	0.00	0.10	0.03
Sri Lanka	0.02	0.02	0.03	0.03	0.02
Honduras	0.08	0.00	0.00	0.00	0.02
China	0.05	0.02	0.01	0.00	0.02
Malawi	0.07	0.00	0.00	0.00	0.02
Jamaica	0.04	0.04	0.00	0.00	0.02
France	0.02	0.02	0.01	0.02	0.02
Cote d'Ivoire	0.06	0.01	0.00	0.00	0.02
Kenya	0.06	0.00	0.00	0.00	0.02
Tanzania	0.06	0.00	0.00	0.00	0.02
Kosovo	0.06	0.00	0.00	0.00	0.02
Viet Nam	0.03	0.01	0.01	0.02	0.02
Nigeria	0.03	0.03	0.00	0.00	0.01
Iraq	0.02	0.02	0.02	0.00	0.01
Puerto Rico (US)	0.05	0.00	0.00	0.00	0.01
Angola	0.03	0.02	0.00	0.00	0.01
Congo, Dem. Rep.	0.04	0.00	0.00	0.00	0.01
Mexico	0.03	0.01	0.00	0.00	0.01
Argentina	0.04	0.00	0.00	0.00	0.01
Norway	0.00	0.00	0.02	0.02	0.01
Ghana	0.02	0.01	0.00	0.00	0.01
Ukraine	0.03	0.00	0.00	0.00	0.01
Bahrain	0.02	0.01	0.00	0.00	0.01
Japan	0.01	0.01	0.01	0.01	0.01
Bangladesh	0.01	0.01	0.01	0.00	0.01
Austria	0.02	0.01	0.00	0.00	0.01
Libya	0.01	0.01	0.00	0.00	0.01
Senegal	0.03	0.00	0.00	0.00	0.01
Israel	0.02	0.01	0.00	0.00	0.01
Hungary	0.01	0.01	0.00	0.00	0.01
Slovenia	0.01	0.01	0.01	0.00	0.01
Singapore	0.00	0.01	0.01	0.00	0.01
Kyrgyz Republic	0.02	0.00	0.00	0.00	0.00
Switzerland	0.01	0.01	0.00	0.00	0.00
Turkiye	0.02	0.00	0.00	0.00	0.00
Brazil	0.01	0.00	0.01	0.00	0.00
Syrian Arab Republic	0.01	0.00	0.00	0.00	0.00
Mozambique	0.01	0.00	0.00	0.00	0.00
Kazakhstan	0.01	0.00	0.00	0.00	0.00

Table A3.2: Country-level per capita inflation reduction outlook associated with renewable development (2027 – 2030)

Country	2027	2028	2029	2030	Average
Togo	-0.06	-0.09	-0.06	-0.06	-0.07
Namibia	-0.06	-0.06	-0.06	-0.06	-0.06
Finland	-0.06	-0.06	-0.06	-0.06	-0.06
United Arab Emirates	-0.06	-0.06	-0.06	-0.05	-0.06
Chile	-0.06	-0.06	-0.06	-0.06	-0.06
Ireland	-0.05	-0.06	-0.05	-0.05	-0.05
Mauritania	0.00	0.00	-0.06	-0.12	-0.05
Denmark	-0.03	-0.04	-0.05	-0.06	-0.05
Djibouti	-0.06	-0.06	-0.04	-0.01	-0.05
Estonia	-0.01	-0.04	-0.06	-0.06	-0.04
Oman	-0.04	-0.05	-0.05	-0.04	-0.04
Lithuania	-0.06	-0.05	-0.02	-0.03	-0.04
Bolivia	-0.04	-0.04	-0.04	-0.04	-0.04
Nicaragua	-0.10	-0.05	-0.01	0.00	-0.04
Chad	-0.06	-0.06	-0.04	-0.01	-0.04
Colombia	-0.04	-0.04	-0.04	-0.04	-0.04
Australia	-0.04	-0.04	-0.04	-0.04	-0.04
Netherlands	-0.01	-0.02	-0.05	-0.06	-0.04
Serbia	-0.03	-0.04	-0.04	-0.04	-0.03
Morocco	-0.02	-0.04	-0.04	-0.04	-0.03
Bosnia and Herzegovina	-0.03	-0.03	-0.03	-0.03	-0.03
Botswana	-0.03	-0.03	-0.03	-0.03	-0.03
Egypt, Arab Rep.	-0.03	-0.03	-0.03	-0.03	-0.03
Gambia, The	-0.03	-0.03	-0.03	-0.03	-0.03
Madagascar	-0.03	-0.03	-0.03	-0.03	-0.03
Philippines	-0.03	-0.03	-0.03	-0.03	-0.03
Zambia	-0.03	-0.03	-0.03	-0.03	-0.03
Lao PDR	-0.03	-0.03	-0.03	-0.03	-0.03
Saudi Arabia	-0.03	-0.03	-0.03	-0.03	-0.03
India	-0.03	-0.03	-0.03	-0.02	-0.03
Tunisia	-0.02	-0.03	-0.03	-0.03	-0.03
Mali	-0.03	-0.03	-0.03	-0.02	-0.03
Latvia	-0.05	-0.05	-0.01	0.00	-0.03
Eritrea	-0.02	-0.03	-0.03	-0.03	-0.03
Peru	-0.03	-0.03	-0.03	-0.01	-0.03
Sweden	-0.01	-0.02	-0.03	-0.04	-0.03
Uzbekistan	-0.03	-0.04	-0.02	0.00	-0.02
Poland	-0.01	-0.03	-0.03	-0.02	-0.02
Spain	-0.03	-0.03	-0.02	-0.01	-0.02
United Kingdom	-0.01	-0.01	-0.02	-0.04	-0.02
Canada	-0.03	-0.03	-0.01	-0.01	-0.02
Eswatini	-0.02	-0.04	-0.02	0.00	-0.02
South Africa	-0.02	-0.02	-0.02	-0.02	-0.02
Dominican Republic	-0.04	-0.03	-0.01	0.00	-0.02
Croatia	-0.04	-0.03	0.00	0.00	-0.02
Portugal	-0.03	-0.01	0.00	-0.02	-0.02
Romania	-0.03	-0.02	-0.01	0.00	-0.02
Ecuador	-0.02	-0.03	-0.01	0.00	-0.01
Algeria	-0.02	-0.02	-0.01	-0.01	-0.01
Zimbabwe	-0.03	-0.02	-0.01	0.00	-0.01
Yemen, Rep.	-0.04	-0.02	0.00	0.00	-0.01
Albania	-0.01	-0.01	-0.01	-0.02	-0.01
New Zealand	-0.03	-0.02	-0.01	0.00	-0.01
Panama	-0.02	-0.02	-0.01	0.00	-0.01
Guatemala	-0.02	-0.02	-0.01	0.00	-0.01
United States	-0.02	-0.02	-0.01	0.00	-0.01
Burkina Faso	-0.02	-0.02	-0.01	0.00	-0.01
Korea, Rep.	-0.01	-0.01	-0.01	-0.02	-0.01
Azerbaijan	-0.02	-0.02	0.00	0.00	-0.01
Kuwait	-0.01	-0.02	-0.01	0.00	-0.01
Costa Rica	-0.01	-0.02	-0.01	0.00	-0.01

Country	2027	2028	2029	2030	Average
Germany	-0.01	-0.01	-0.01	0.00	-0.01
Honduras	-0.02	-0.01	0.00	0.00	-0.01
Malaysia	-0.01	-0.02	-0.01	0.00	-0.01
Belgium	0.00	-0.01	-0.01	-0.02	-0.01
Malawi	-0.02	-0.01	0.00	0.00	-0.01
Tanzania	-0.02	-0.01	0.00	0.00	-0.01
Cote d'Ivoire	-0.02	-0.01	0.00	0.00	-0.01
Kosovo	-0.02	-0.01	0.00	0.00	-0.01
Jordan	0.00	0.00	-0.01	-0.02	-0.01
Bulgaria	-0.01	-0.01	0.00	0.00	-0.01
Greece	-0.01	-0.01	0.00	0.00	-0.01
Sri Lanka	0.00	-0.01	-0.01	-0.01	-0.01
Puerto Rico (US)	-0.02	-0.01	0.00	0.00	-0.01
Italy	0.00	-0.01	-0.01	0.00	-0.01
Jamaica	-0.01	-0.01	-0.01	0.00	-0.01
France	0.00	-0.01	0.00	0.00	-0.01
Congo, Dem. Rep.	-0.01	-0.01	0.00	0.00	-0.01
Argentina	-0.01	-0.01	0.00	0.00	0.00
Iraq	-0.01	-0.01	-0.01	0.00	0.00
Viet Nam	-0.01	-0.01	0.00	0.00	0.00
Nigeria	0.00	-0.01	0.00	0.00	0.00
Angola	-0.01	-0.01	0.00	0.00	0.00
Cyprus	0.00	0.00	-0.01	0.00	0.00
Mexico	-0.01	-0.01	0.00	0.00	0.00
China	-0.01	-0.01	0.00	0.00	0.00
Kenya	-0.01	-0.01	0.00	0.00	0.00
Lesotho	0.00	0.00	0.00	-0.02	0.00
Ukraine	-0.01	0.00	0.00	0.00	0.00
Ghana	0.00	-0.01	0.00	0.00	0.00
Senegal	-0.01	0.00	0.00	0.00	0.00
Bahrain	-0.01	0.00	0.00	0.00	0.00
Kyrgyz Republic	-0.01	0.00	0.00	0.00	0.00

Source: Allianz Research


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