CLIMATESCOPE 2025

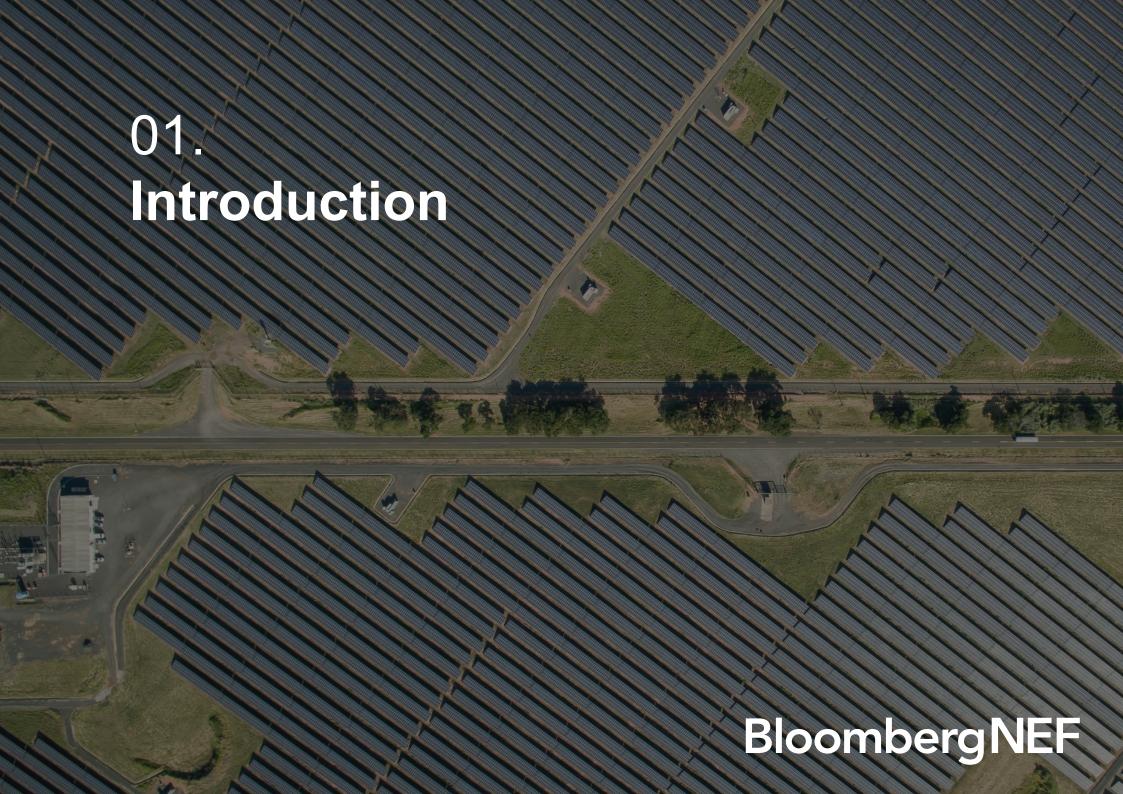
Emerging Markets
Power Transition Factbook

BloombergNEF

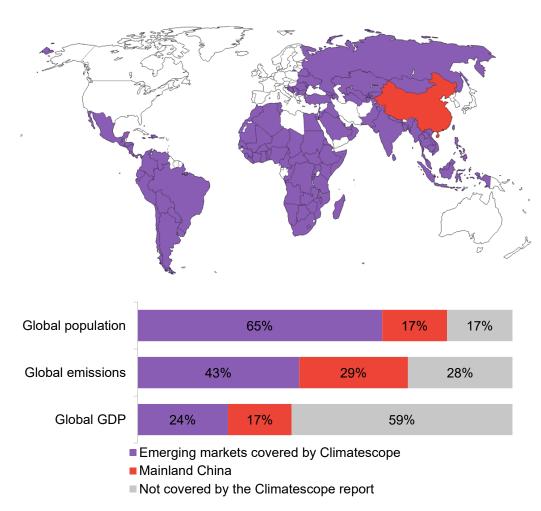
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About Climatescope: Tracing emerging markets' progress in the energy transition



Source: BloombergNEF; J. Gütschow et al., "The PRIMAP-hist national historical emissions time series v2.7 (1750-2024)"; World Bank; International Monetary Fund. Note: Excludes land use and forestry. For further details on how Climatescope has evolved over the years, please visit global-climatescope.org/about. For the full list of markets covered, please see the Market coverage at the end of this report. GDP refers to gross domestic product. Mapped data are for distinct economies.

Climatescope is BloombergNEF's annual online market assessment tool, report and index evaluating individual markets' relative readiness to put energy transition investment to work. This is the 14th annual edition of the report.

Since its inception, Climatescope has evolved and expanded, and it now includes detailed information on 140 markets around the world – or nearly every market with more than 2 million inhabitants.

While data is still collected for developed economies, emerging markets and developing economies (EMDEs) are now in the Climatescope spotlight. How the energy transition is progressing in these markets – and how they are harnessing the transition to boost attractiveness to outside investors – has taken center stage. (However, EMDEs that are sanctioned or involved in conflicts have not been considered in this report or in the Climatescope ranking.

Together, the 110 emerging markets included in Climatescope cover 83% of the global population, 72% of global emissions and 41% of the world's gross domestic product. That's a huge opportunity for the energy transition.

The effort to highlight opportunities and barriers in emerging markets has also informed Climatescope's approach to mainland China. While it is classified as an emerging market, the Asian giant is on a different energy transition trajectory from most other emerging economies; for this reason, it is excluded from this report analysis but is still considered for the Climatescope ranking.

Executive summary

It has been 10 years since the signing of the Paris Agreement, when emerging markets and developing economies first committed to climate action on the global stage. In many ways, the past decade has been a success story for these markets. Their renewable-energy investment has nearly tripled, installed low-carbon power capacity has doubled, and nearly all of them have a climate target on the books.

Yet significant hurdles remain. As emerging-market economies and populations grow, energy access and demand have also risen, driving up emissions. In 2024, these economies accounted for 43% of global greenhouse gas emissions, a record high. The financing needed to enable the energy transition in these markets far exceeds current flows. And the absence of binding targets and standardized reporting methods continue to hinder transparency and progress.

This special edition of BNEF's Climatescope project zooms out to encompass the decade since the Paris Agreement. By taking a longer view on how the energy transition is progressing in emerging markets, it seeks to identify the success stories, the challenges and the opportunities in moving these economies toward a low-carbon future.

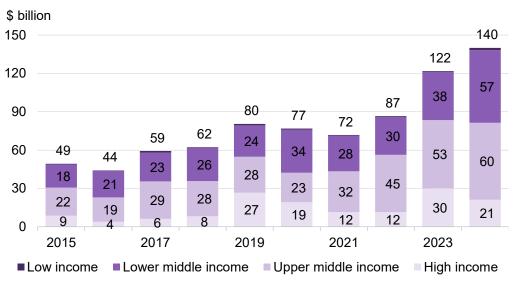
- Annual renewable-energy investment in emerging markets has expanded dramatically, to \$140 billion in 2024 from \$49 billion in 2015. However, the United Nations Framework Convention on Climate Change's Standing Committee on Finance estimates that these markets require about \$1.3 trillion annually through 2035 to stay aligned with the Paris Agreement's temperature limits.
- Investment flows also remain highly concentrated, with the majority directed to India and Brazil. Low-income markets capture less than 1% of global renewable funding.

43% Emerging markets' share of global greenhouse gas emissions in 2024

Emerging markets' new-build renewable energy investment growth from 2015 to 2024

78% Share of new solar and wind capacity that was added in emerging markets in 2024

New-build renewable energy investment in emerging markets, by income level



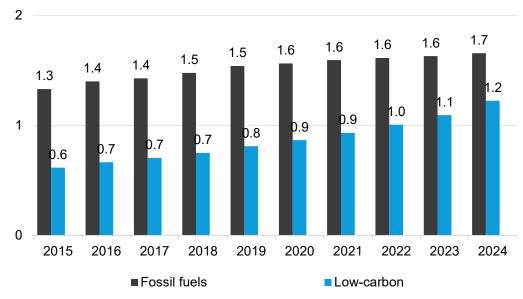
Source: BloombergNEF. Note: Includes new asset finance for renewables and investments in small-scale solar. Asset finance for renewables include utility-scale solar, onshore wind, offshore wind, co-located projects, biofuels, geothermal, biomass and waste, small hydro and marine. Utility-scale solar includes solar thermal and photovoltaic (PV) projects. Income level classification from the World Bank

Executive summary (2)

- Solar power especially the small-scale variety has been the main driver of renewable investment in emerging markets. Solar accounted for nearly three-quarters of total clean-energy spending in emerging markets in 2024; small-scale solar alone raked in more than 47% of the total, up from 5% in 2015. The success of small-scale projects is largely thanks to the rapid adoption of net-metering policies, which are now present in 73% of emerging markets, from 21% in 2015.
- The rise of decentralized generation, the rapid adoption of supportive policies, and sharp drops in technology costs have helped double low-carbon capacity in emerging markets, from 0.6 terawatts (TW) in 2015 to 1.2TW in 2024. Solar has taken center stage, with wind now playing a secondary role: for every 1 gigawatt (GW) of wind, emerging markets installed more than 8GW of solar in 2024. Still, fossil fuels make up around 58% of installed capacity in emerging markets, and output keeps rising in absolute terms.
- As renewable penetration grows, grid integration and flexibility have become defining challenges. Curtailment is becoming more common in markets with rapid buildout. Supporting system reliability and renewable integration are becoming a priority. By the first half of 2025, 18 emerging markets had adopted energy-storage targets.
- Each year, Climatescope ranks emerging markets by their attractiveness for clean-energy investment. For the third consecutive year, India leads the ranking. Below the top rung, however, this year's top 10 shifted significantly, with new entrants outperforming traditional leaders such as mainland China and Brazil. Romania climbed to second place for the first time, Chile returned to the top three following progress in grid expansion, and the Philippines and Pakistan rounded out the top five the latter accounting for 11% of all solar capacity additions in emerging markets in 2024.

Fossil-fuel and low-carbon installed capacity in emerging markets

Terawatts



Source: BloombergNEF. Note: Low-carbon technologies consist of solar, wind, biomass, geothermal, marine, hydro and nuclear. For full data, see BNEF's Capacity tool (web | terminal).

Paris to 2025: A decade of climate commitments and delivery

Adopted in 2015, the Paris Agreement marked the first time that emerging markets and developing markets accepted shared responsibility for addressing climate change. Under the agreement, every party must submit Nationally Determined Contributions (NDCs) – national plans to reduce emissions and keep global warming well below 2C above pre-industrial levels, with efforts to adhere to a 1.5C limit.

This bottom-up framework replaced the Kyoto Protocol's system of binding targets for developed markets with a universal, voluntary model. While it gave emerging markets a central role, it also imposed no penalties for missed targets.

The Paris Agreement also rests on a distinction between "developed economies" (known as Annex I parties at COP) and "developing economies" (non-Annex I parties). The principle of "common but differentiated responsibilities" acknowledges that all are obliged to address global environmental problems but do not bear the same responsibilities or have the same capacity to take action.

To finance the global energy transition, in 2009 developed markets pledged to provide \$100 billion per year in climate finance by 2020. The expectation was that public funds from developed economies and multilateral banks would catalyze private capital. However, investment lagged. The \$100 billion threshold was first passed in 2022 and formally acknowledged two years later, at COP29 in Baku, through the United Nations Framework Convention on Climate Change (UNFCCC) Standing Committee on Finance's report (SCF).

Building on that achievement, COP29 established a new collective goal to mobilize at least \$300 billion per year by 2035. That's a hefty chunk of money, but it's an order of magnitude too low: analyses by the UNFCCC SCF estimate that developing countries need around \$1.3 trillion annually through 2035 for mitigation and adaptation to stay aligned with the Paris Agreement's temperature limits.

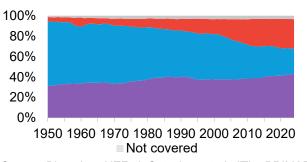
Those funds are intended to drive decarbonization across all sectors of the economy – energy, transport, industry, agriculture and buildings. Among these, the power sector stands out as both the largest emitter and the readiest for rapid transformation, as it accounts for roughly 70% of total greenhouse gas emissions in emerging markets. As such, this report zeroes in on the power sector in emerging markets, analyzing how their energy transitions are developing – and where (and why) they may be getting stuck.

For in-depth analysis on energy-transition incentives and regulations adopted by the Group of 20 members, see the *G-20 Zero-Carbon Policy Scoreboard*, BNEF's annual assessment of how the world's largest economies are supporting the move to a low-carbon future. After a year of unprecedented climate policy rollbacks, the Scoreboard provides insight as to which G-20 markets are taking credible action to drive decarbonization – and which need to do more.

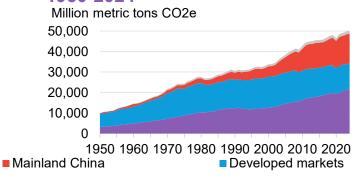
02. Progress How the energy transition is evolving in emerging markets and developing economies BloombergNEF

Emissions from emerging markets hit a new record in 2024

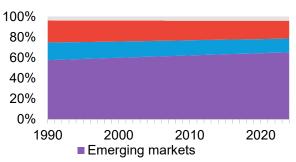
Share of global emissions by trade category, 1950-2024



Global emissions by trade category, 1950-2024



Share of global population by trade category, 1990-2024



Source: BloombergNEF; J. Gütschow et al., "The PRIMAP-hist national historical emissions time series v2.7 (1750-2024)"; World Bank. Note: Excludes land use and forestry. "Not covered" indicates markets not covered by Climatescope. CO2e is carbon dioxide equivalent.

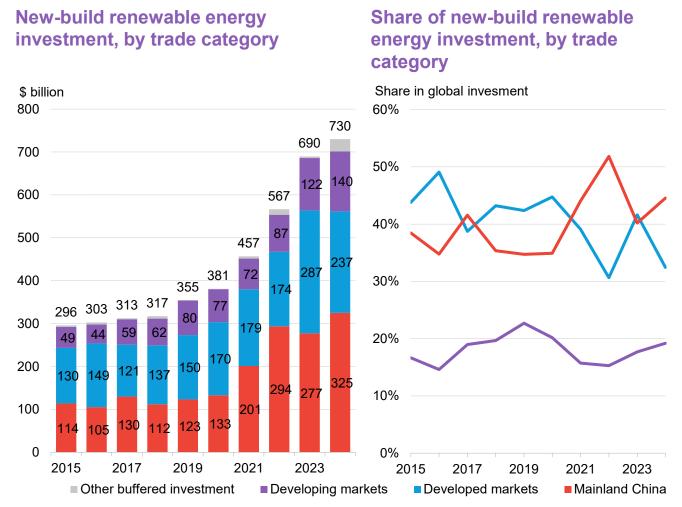
Emerging markets accounted for roughly 43% of global emissions in 2024, their highest share in total global emissions since at least the mid-19th century. At that time, markets that are today defined as developed represented about 70% of global emissions, according to the dataset PRIMAP-hist, while mainland China accounted for just 5%. This balance shifted rapidly as mainland China's industrialization accelerated, transforming the global emissions landscape.

As emerging economies expanded and their populations grew, access to and demand for energy have also increased, driving up emissions. A key turning point came in 2007, when emissions from emerging markets (excluding mainland China) surpassed those of developed economies for the first time, at 38% versus 37%. Meanwhile, mainland China's share hit 22% that year, up from 11% just 20 years before.

Over the past decade, emerging markets' share of global emissions has plateaued at around 43% of the global share. However, this apparent stabilization largely reflects the growing dominance of mainland China, now the world's single largest emitter and responsible for roughly 29% of global emissions in 2024.

Moreover, absolute emissions in emerging markets have continued to rise. Despite a temporary fall during the first year of the Covid-19 pandemic, emissions have been on an upward trajectory, reaching a record 21,000 million metric tons of CO₂ equivalent (MtCO₂e) in 2024 – a 70% increase from the year 2000. Developed economies, by contrast, have seen their emissions fall by 17% over the same time period. In 2024, emissions from developed markets reached just 12,500MtCO₂e, from 13,600 MtCO₂e in 2016 (when the Paris Agreement entered into force).

Renewables investment has nearly tripled in emerging markets, but their share of the global total remains low



Source: BloombergNEF. Note: Includes new asset finance for renewables and investments in small-scale solar. Asset finance for renewables includes utility-scale solar, onshore wind, offshore wind, co-located projects, biofuels, geothermal, biomass and waste, small hydro and marine. Utility-scale solar includes solar thermal and photovoltaic (PV) projects. "Other buffered investment" is of unknown market origin.

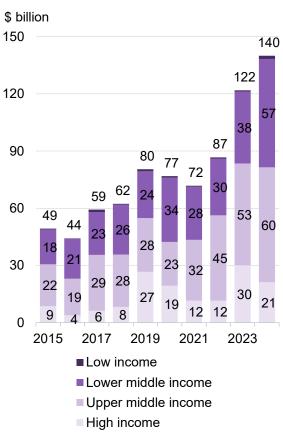
Renewable energy investment in emerging markets has nearly tripled over the last decade, from about \$49 billion in 2015 to \$140 billion in 2024. Yet their share of global clean energy investment has averaged just 18%. Over the same period, developed economies and mainland China captured the bulk of capital, at roughly 42% and 40%, respectively.

Until 2020, developed markets were the main drivers of investment in renewables, largely thanks to stable policies and a wider range of investors able to provide access to affordable capital. But as mainland China's industrial base scaled up and technology costs fell, the Asian behemoth became the sector's dominant engine of growth. In 2024, it concentrated around 45% of global renewable energy investment, far surpassing the 32% from developed markets.

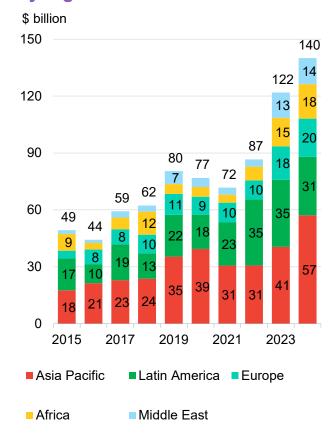
In contrast, many emerging markets still face structural barriers that hinder investment growth, including high costs of capital, political instability, higher offtaker risks and currency volatility. Nearly 10 years after the Paris Agreement, these hurdles have kept the investment gap for renewables wide, despite falling technology costs and rising demand for clean power.

Less than 1% of global renewable investment has reached low-income markets since 2015

New-build renewable energy investment in emerging markets, by income level



New-build renewable energy investment in emerging markets, by region



Break the emerging market category down by income level, and disparities in renewable-energy investment become even more pronounced. Since 2015, low-income markets capture barely 1% of total flows.

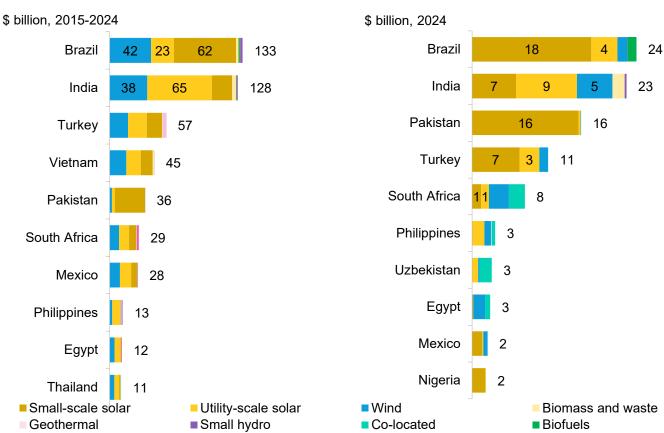
Over the past decade, upper-middle-income economies accounted for around 43% of renewable-energy investment in emerging markets, followed by lower-middle-income countries with 38%. The remaining 19% went to high-income economies; these represent only a small subset of the group, as just 16 out of 110 emerging markets are classified as high-income.

Capital flows have also been highly uneven across regions. The Asia Pacific region accounted for 40% of emerging markets' total investment in 2024. Africa, by contrast, attracted only 11%. Some 40% of the continent's markets are classified as low-income, but investment was concentrated in just a few higher-income economies, such as South Africa, Egypt and Morocco.

Source: BloombergNEF. Note: Includes new asset finance for renewables and investments in small-scale solar. Asset finance for renewables include utility-scale solar, onshore wind, offshore wind, co-located projects, biofuels, geothermal, biomass and waste, small hydro and marine. Utility-scale solar includes solar thermal and photovoltaic (PV) projects. Income level classification from The World Bank.

Renewable investment remains highly concentrated in a few emerging markets

Top 10 EMDEs for cumulative renewable energy investment, 2015-2024



Source: BloombergNEF. Note: Includes new asset finance for renewables and investments in small-scale solar. Asset finance for renewables include utility-scale solar, onshore wind, offshore wind, co-located projects, biofuels, geothermal, biomass and waste, small hydro and marine. Utility-scale solar includes solar thermal and photovoltaic (PV) projects. EMDEs refers to emerging markets and developing economies.

Top 10 EMDEs for renewable energy investment, 2024

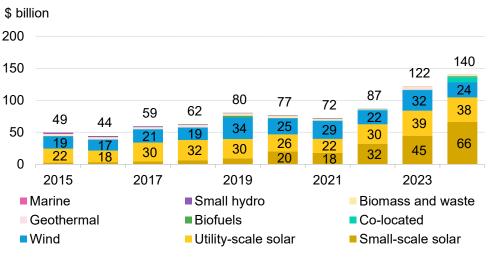
Among emerging markets, Brazil and India have together accounted for 33% of total emerging market renewables investment since 2015.

There is considerable stability in the list of top emerging market destinations for renewable-energy investment. The top 10 list from 2024 is largely identical to the top 10 list for cumulative investment over the last decade, with two key differences: Uzbekistan and Nigeria are on the 2024 list, while Vietnam and Thailand are on the cumulative one.

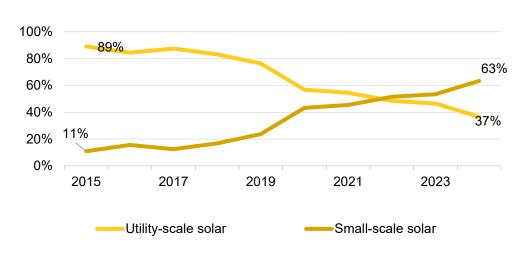
Pakistan, however, stole the spotlight last year. This was largely thanks to a surge in solar installations under its net-metering program, which allows projects up to 1 megawatt in size to participate and exempts systems below 25 kilowatts from licensing fees. The market attracted \$16 billion in small-scale solar investment, nearly matching Brazil's investment on the same technology. Elevated retail electricity prices and unreliable grid supply further fueled the shift toward distributed generation, positioning Pakistan among the fastest-growing solar markets of the year.

Solar leads renewable investment growth across emerging markets as distributed generation expands

New-build renewable energy investment in emerging markets, by technology



Share of small-scale solar in total solar investment in emerging markets



Source: BloombergNEF. Note: Includes new asset finance for renewables and investments in small-scale solar. Asset finance for renewables include utility-scale solar, onshore wind, offshore wind, co-located projects, biofuels, geothermal, biomass and waste, small hydro and marine. Utility-scale solar includes solar thermal and photovoltaic (PV) projects..

Solar has been the leading driver of renewable investment in emerging markets over the past decade. It represented nearly three-quarters of total clean-energy spending in 2024. Small-scale solar led this charge, amounting to 47% of investment in emerging markets – compared with less than 5% in 2015.

Investment in small-scale solar began to pull ahead in 2022. By 2024, it accounted for 63% of emerging market's solar investment, while utility-scale investment received just 37%. This massive growth rate highlights the importance of decentralized solutions in emerging markets' energy transitions and demonstrates how supportive distributed-generation policies can accelerate uptake. For many economies, self-generation

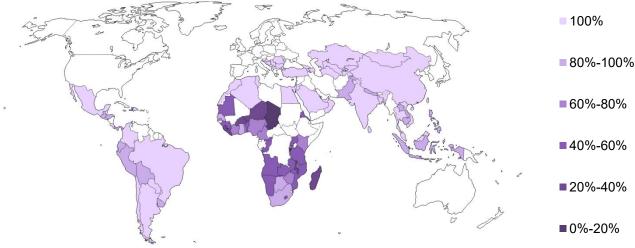
solutions are a lever for expanding access to electricity and meeting demand growth.

Wind investment, however, has slowed, reflecting grid-connection delays, rising curtailment and changes to policy. In 2021, wind accounted for 40% of total renewable energy investment in emerging markets, but after falling each year it accounted for only 17% in 2024. In absolute terms, investment dropped 33% year-on-year, to \$24 billion in 2024 from \$32 billion in 2023.

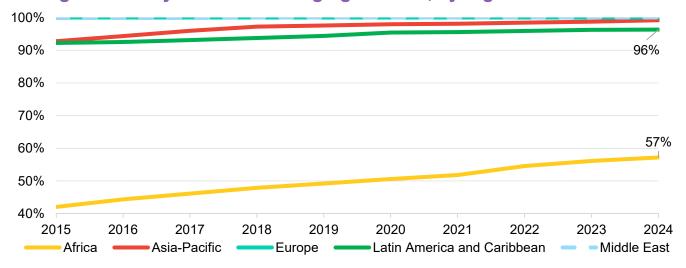
Other renewable technologies amounted to less than 8% of total investment, both in 2024 and cumulatively since 2015.

Half of emerging markets still lack universal access to electricity

Electrification rates in emerging markets, 2024



Average electricity access in emerging markets, by region



Electricity access remains one of the defining challenges in emerging markets' energy transitions. As of 2024, roughly half of these markets still lack universal access to electricity, and more than 600 million people in sub-Saharan Africa lack access to reliable and affordable electricity.

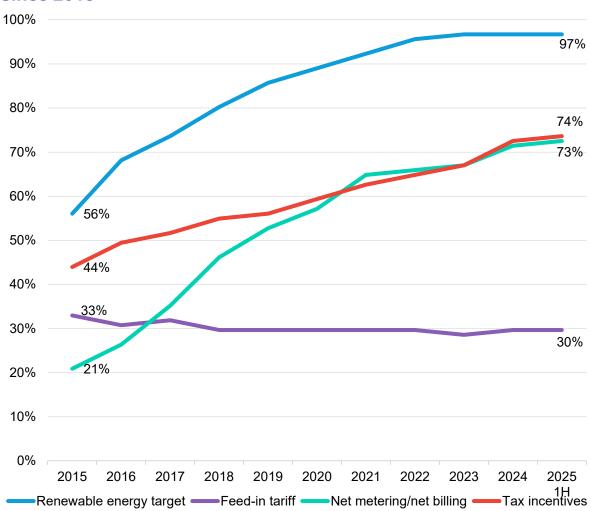
Still, the electrification landscape in Africa has improved markedly over the last decade. In 2015, the average electricity access rate in the region stood at 42%; in 2024, it had grown to 57%. This progress has been driven by increased investment in distributed renewable energy, particularly solar mini-grids and home systems, which are helping bridge the gap where extending the main grid remains uneconomical. Rwanda, for instance, recorded one of the most remarkable improvements in access to electricity during this period, rising from just 20% in 2015 to 77% in 2024.

By contrast, the Asia Pacific and Latin America regions have achieved near-universal electricity access. Cambodia is a particularly notable example, rising from 49% in 2015 to 99% in 2024.

Source: BloombergNEF

Rapid adoption of net-metering policies underpins the small-scale solar boom in emerging markets

Share of emerging markets with key policy mechanisms in force since 2015



Over the past decade, the adoption of renewableenergy policies has expanded sharply across emerging markets. Net-metering programs, which compensate retail consumers for electricity they feed onto the grid, are at the center of this shift. In 2015, only 21% of emerging markets had a net-metering or distributed-generation framework in place; by the first half of 2025, the share had climbed to 73%.

This rapid uptake of consumer-oriented policies has been a key driver of the boom in small-scale solar investment and installations, which have also been supported by a dramatic drop in solar cell and module prices. In 2024, cell prices dropped almost 60% while modules fell by 44%.

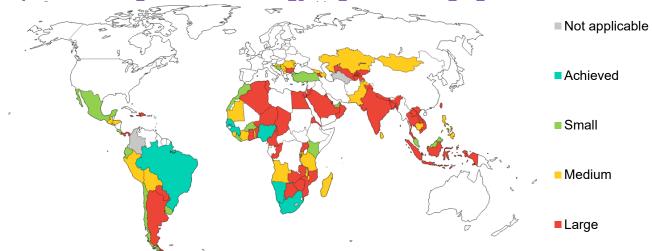
Renewable-energy targets remain the most common policy mechanism across almost all emerging markets surveyed by Climatescope. Following the establishment of the Paris Agreement, adoption jumped from 56% in 2015 to 97% in the first half of 2025, although most of these targets are not legally binding.

Tax incentives are also among the most widely adopted measures, present in about 74% of emerging markets in as of 1H 2025. Instruments such as value-added tax (VAT) exemptions and import-duty reductions for renewable-energy equipment have lowered upfront costs and enabled other policies, like auctions and net metering, to gain traction.

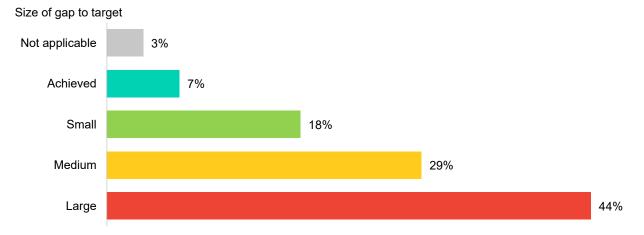
Source: BloombergNEF. Note: Includes data collected through the first half of 2025.

Over 40% of emerging markets are far from reaching their renewable energy targets

Gap to achieving renewable energy targets in emerging markets



Share of emerging markets, by gap to target



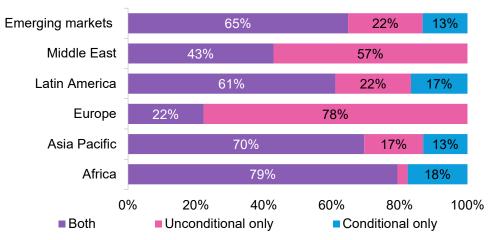
Source: BloombergNEF. Note: Includes data collected through the first half of 2025. "Small" is up to 20%, "medium" is 20-50%, and "large" is over 50%. "Not applicable" refers to markets that don't have a renewable energy target in place. Mapped data are for distinct economies; sanctioned markets are not included. For more information, please refer to the Appendix.

Renewable-energy targets are now nearly universal across emerging markets, most of which have identified 2030 as the milestone year. However, only one in five of these targets are legally binding, and progress remains uneven. By mid-2025, just 25% of markets had achieved or are close to achieving their goals, while 44% still face a significant gap.

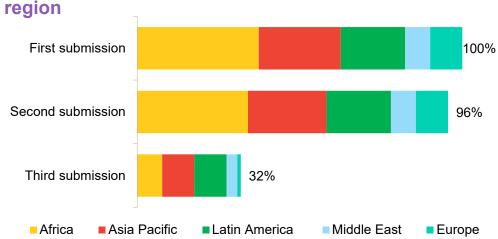
Achieving these targets will require that governments expand investment incentives, ensure policy continuity and strengthen regulatory frameworks to attract long-term private capital. Many emerging economies are already advancing through market-based instruments such as renewable energy auctions and net-metering schemes, which mobilize both large-scale developers and consumers to accelerate the transition. Yet despite the introduction of these additional policies, most markets remain far from meeting their renewable-energy targets, highlighting the scale of effort still required to close the gap.

Just a third of emerging markets have submitted their NDC 3.0

Emerging markets' NDC targets, by conditionality



Emerging markets' NDC target submission rate, by region



Source: BloombergNEF. Note: Considers new and updated submissions to the United Nations Framework Convention on Climate Change (UNFCCC) registry. Considers target submissions up to Oct. 2. Does not include markets that are sanctioned or in conflict.

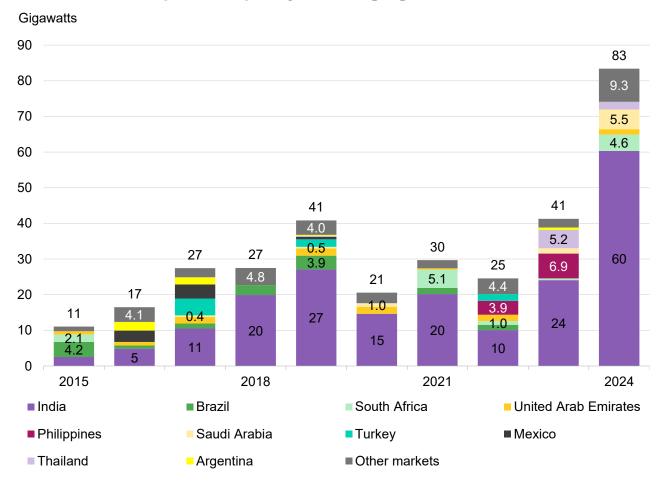
Submissions of Nationally Determined Contributions (NDCs) are central to global climate planning under the Paris Agreement. These may include unconditional commitments, which include domestic resource utilization, and/or conditional components, which rely on international climate finance and support. Around 67% of emerging and developing economies have pledges of both types. Yet in Africa nearly 80% include both components and another 18% rely exclusively on conditional targets, reflecting the region's dependence on external climate finance. Since the Paris Agreement, parties are requested to submit new NDCs every five years; 2025 marks the third submission round, when parties should include 2035 targets. The initial February and extended September 2025 deadlines were missed by most markets, and as of early October 2025, only 32% of emerging markets have submitted their NDC 3.0.

Out of the missing submissions, two of the most notable are those from the EU and mainland China. While the EU has indicated a likely reduction target of 66.25-72.5% by 2035, and mainland China announced a 7-10% reduction by 2035, neither of them have formally submitted their NDC 3.0 – explaining why Europe currently has the lowest regional share in NDC submissions for emerging markets.

These delays reflect broader geopolitical and economic headwinds that have slowed global climate planning. Additional submissions are expected as countries convene at COP30. Yet even with new submissions, tracking progress remains difficult due to the lack of standardized methodologies and centralized reporting systems. Markets use different baseline years, sectoral scopes, and accounting methods, making it difficult to assess how effective current pledges are or which participants are truly on track to meet them.

India leads clean power auctions among emerging markets

Auctioned clean power capacity in emerging markets



Competitive auctions have become one of the most effective policy tools to attract investment and accelerate clean power growth. India continues to dominate renewable energy capacity allocations among emerging markets, awarding 60 gigawatts in 2024, or 72% of all capacity auctioned across emerging economies tracked by Climatescope.

Saudi Arabia (5.5GW) and South Africa (4.6GW) came in a distant second and third: their combined volume represents less than one-tenth of India's total.

Across Africa, renewable energy auctions remain limited. In 2024, around 60% of the continent's markets had an active auction policy in force, but in 2025 that share has fallen to 25%, as most schemes have gone inactive after three years without new rounds. The main exceptions are Egypt, Morocco and South Africa, which have maintained relatively consistent auction programs in recent years, having held at least five rounds each over the last decade.

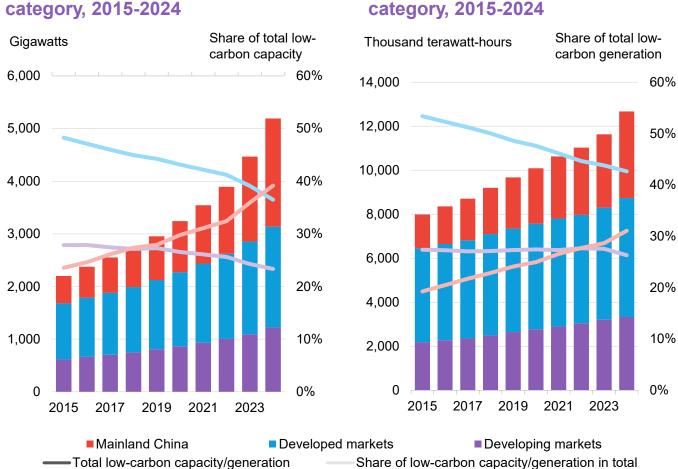
Source: BloombergNEF. Note: Cumulative auctioned capacity considers only allocated bid capacity. Clean power includes biomass and waste, hydropower, geothermal, offshore wind, onshore wind, solar thermal, solar PV, co-located projects and storage. "Co-located" includes the capacity of the wind and/or solar installation linked to the project. Countries with an "inactive" status for auction schemes means that they have not held new rounds since 2021. Does not include markets that are sanctioned or in conflict.

Mainland China's rapid low-carbon growth eclipses progress in emerging markets

Share and total low-carbon

electricity generation by trade





Worldwide, installed power capacity reached about 9,600 gigawatts at the end of last year, with low-carbon technologies accounting for 54% of the total.

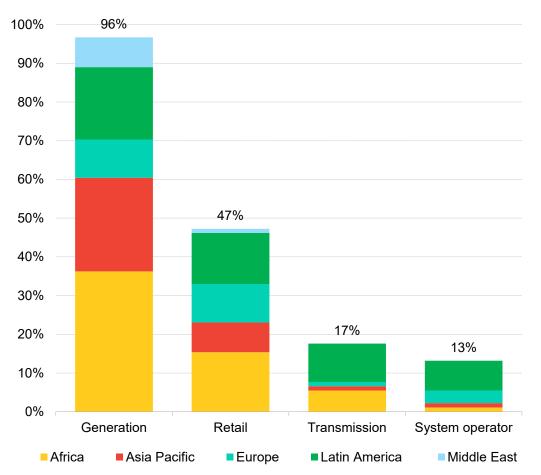
While capacity continues to expand across all regions, emerging and developed markets have lost ground in relative terms as mainland China's buildout accelerates. The market now holds 39% of the world's low-carbon capacity, up from 24% in 2015, while developed markets account for 36% and emerging markets 23%, down from 48% and 28%, respectively. Over the past decade, mainland China has nearly quadrupled its low-carbon capacity, compared with a doubling in other emerging markets.

Despite low-carbon technologies overtaking fossil fuels in installed capacity, they generate less than half of global electricity output (43%) due to lower average capacity factors and grid-dispatch constraints. The pattern mirrors capacity trends: mainland China's share of low-carbon generation rose from 19% in 2015 to 31% in 2024, while developed markets declined from 53% to 43%, and emerging markets from 27% to 26%.

Source: BloombergNEF

Market liberalization is reshaping generation ownership in emerging markets

Private player participation in emerging markets in 2025, by segment and region



Source: BloombergNEF. South Africa's National Treasury "Estimates of National Expenditure 2024." A market is considered to have high offtaker risk when presenting factors like poor utility financial health, chronic payment delays, tariff under-recovery, foreign-exchange exposure, or political or regulatory interference.

Private-sector participation is also helping address energy transition gaps, from grid-connected Independent Power Producers (IPPs) to off-grid distributed solutions.

Climatescope 2025 shows that around 42% of emerging markets present high offtaker risks, often tied to indebted state-owned utilities. Amid fiscal and operational constraints, most governments have gradually opened power markets to private players over the last decade. Today, 96% of emerging markets allow private participation in power generation, helping meet rising electricity demand and accelerating deployment of renewables.

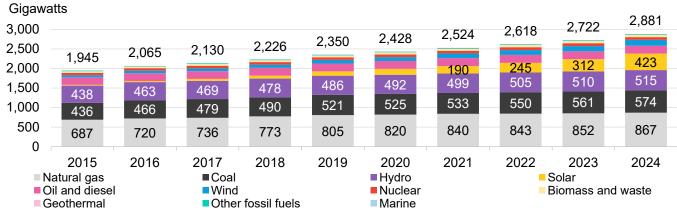
South Africa's state-owned utility, Eskom, exemplifies this transition. According to the <u>National Treasury's 2024 Budget Review</u>, Eskom's debt stood at ZAR 423.9 billion (about \$21 billion) for the 2022-23 fiscal year. The utility's financial distress stems in part from overinvestment in costly coal megaprojects such as Medupi and Kusile, tariffs that failed to keep pace with costs, and an aging coal fleet.

As a result, IPPs have become the primary source of new generation capacity, particularly under South Africa's Renewable Energy Independent Power Producer Procurement Programme (REIPPPP), which has contracted more than 7GW of private renewable projects since 2011, along with a growing number of corporate power purchase agreements with mines and large industrial energy users.

However, involvement of private players declines sharply beyond generation: only 47% of the surveyed economies permit private activity in retail, 17% permit private activity in transmission, and 13% allow private players to take part in system operation.

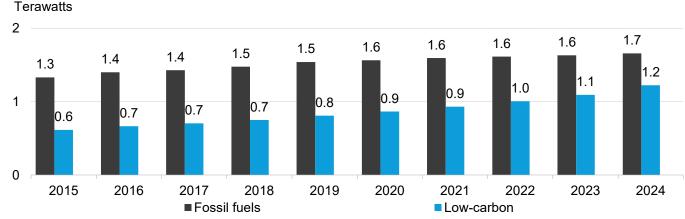
Low-carbon capacity has doubled in emerging markets over the last decade

Installed capacity in emerging markets, by technology



Source: BloombergNEF. Note: "Other fossil fuels" accounts for power plants that use more than one fuel or fuels other than coal, oil and gas. Solar includes utility-scale photovoltaic (PV), small-scale PV and solar thermal. For full data, see BNEF's Capacity tool (web | terminal).

Fossil fuel and low-carbon installed capacity in emerging markets



Source: BloombergNEF. Note: Low-carbon technologies consist of solar, wind, biomass, geothermal, marine, hydro and nuclear. For full data, see BNEF's Capacity tool (web | terminal).

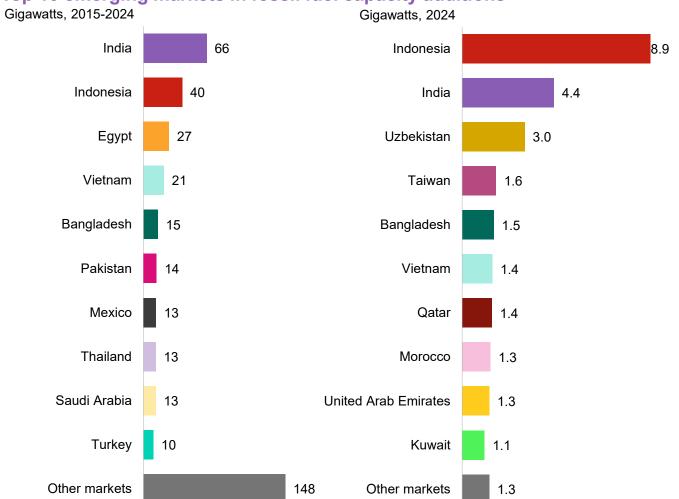
Over the past decade, the adoption of cleanenergy policies, an increase in private-sector participation and falling technology costs have translated into a tangible expansion of lowcarbon technologies across emerging markets' electricity mix. Total installed power capacity in emerging economies reached nearly 2.9 terawatts (TW) in 2024, while low-carbon capacity doubled from 0.6TW in 2015 to 1.2TW in 2024.

This expansion was driven primarily by solar, which surged from just 18GW to 423GW over the same period. Although hydropower remains the largest low-carbon technology in emerging markets, its share of low-carbon capacity has fallen from 71% in 2015 to 42% in 2024, while solar's share has soared from 3% to nearly 39%.

Still, fossil fuels make up around 58% of installed capacity in emerging markets, and their output keeps rising in absolute terms, Fossil fuels generated 1.7TW in 2024, compared to 1.3TW in 2015.

Indonesia added nearly a third of emerging markets' new fossil-fuel capacity in 2024

Top 10 emerging markets in fossil fuel capacity additions



While renewable energy has captured most new investment, fossil-fuel capacity continues to expand across emerging markets, driven by energy-security concerns and rising power demand. In 2024, emerging markets added over 27GW of new fossil-fuel power capacity, the highest annual level since 2021.

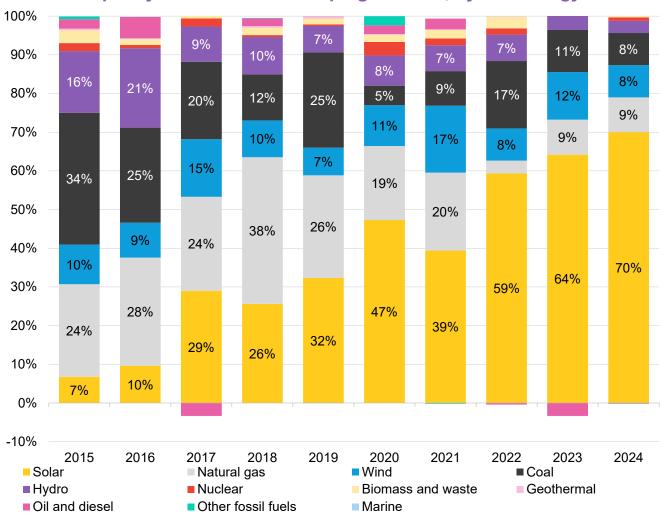
Most of these additions were concentrated in the Asia Pacific region, which added more than 21GW of new fossil-fuel capacity in 2024, or nearly 80% of fossil-fuel-based installations across emerging markets.

Indonesia alone represented nearly one-third of new fossil-fuel installations in emerging markets, with 8.9GW of new capacity. Most of this came from coal and gas projects commissioned to meet rising demand linked to the market's energy-intensive mining and metals sector. Several other markets, including Bangladesh, Vietnam and India, also added new fossil-fuel power plants to meet demand growth and improve grid reliability as renewable penetration increases.

Source: BloombergNEF. Note: For more information on Indonesia, see <u>Indonesia Transition Factbook 2025</u>. Fossil fuels include natural gas, coal, oil and diesel, and "other fossil fuels," which account for plants that use more than one fuel or fuels other than coal, oil and gas.

Solar and wind represented over three-quarters of emerging markets' capacity additions in 2024

Share of capacity additions in developing markets, by technology



Source: BloombergNEF. Note: "Other fossil fuels" accounts for power plants that use more than one fuel or fuels other than coal, oil and gas. Solar includes utility-scale photovoltaic (PV), small-scale PV and solar thermal. Low-carbon technologies consist of solar, wind, biomass, geothermal, marine, hydro and nuclear. For full data, see BNEF's Capacity tool (web | terminal).

Solar and wind accounted for 78% of the 158GW of new capacity added in emerging markets in 2024. Solar's share has followed a marked upward trajectory, and last year the technology represented 70% of new-build capacity. Falling module prices, ease of deployment and scalability from rooftop to utility-scale projects have made solar the most widely adopted technology for new installations worldwide.

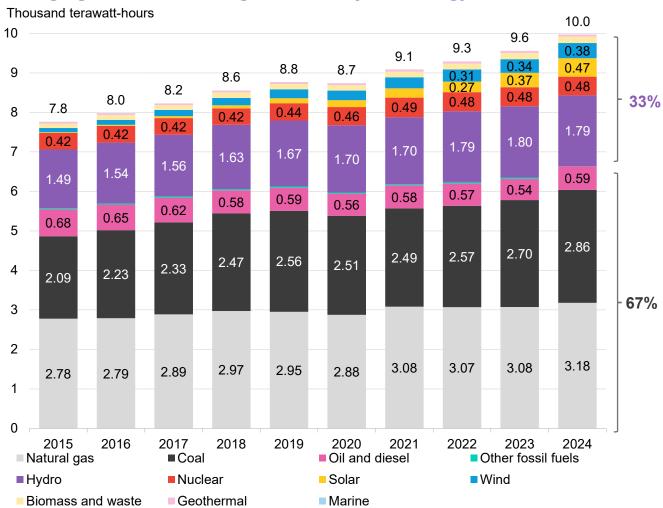
Wind accounted for 8% of global capacity additions in 2024, or 13GW, with new installations largely concentrated in a few markets, such as Brazil, India and Taiwan.

Low-carbon technologies together made up 83% of total capacity additions in 2024, more than doubling their 39% share 39% in 2015. For every 1GW of fossil-fuel capacity added in 2024, 4.8GW of low-carbon capacity was installed, a huge shift compared to a ratio of just 0.63GW of low-carbon capacity per 1GW of fossil fuels in 2015.

Even so, in 2024, 27GW of new fossil-fuel capacity was installed, the largest annual addition since 2021. This highlights the dilemma of balancing a transition to clean energy with rising electricity demand and the need for reliable baseload generation in emerging markets.

Low-carbon technologies supplied a third of emerging markets' generation last year

Emerging markets' annual generation, by technology



Source: BloombergNEF. Note: "Other fossil fuels" accounts for power plants that use more than one fuel or fuels other than coal, oil and gas. Solar includes utility-scale photovoltaic (PV), small-scale PV and solar thermal. Low-carbon technologies consist of solar, wind, biomass, geothermal, marine, hydro and nuclear. For full data, see BNEF's Capacity tool (web | terminal).

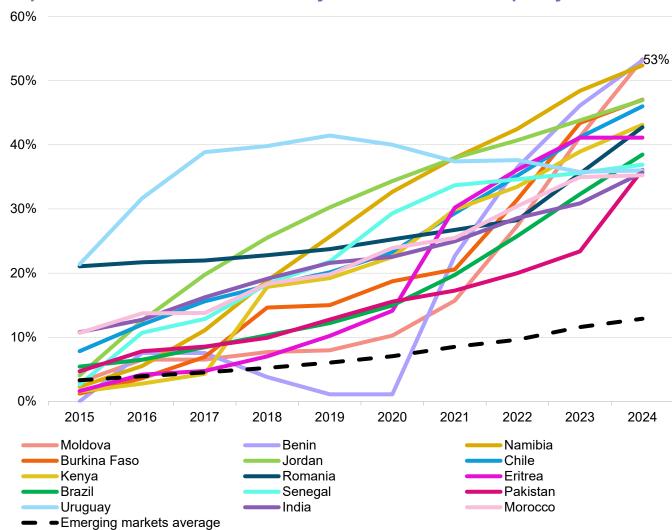
Electricity generation in emerging markets reached roughly 10,000 terawatt-hours (TWh) in 2024, jumping 4.2% year-on-year and posting the highest growth rate in the last decade.

For the first time, low-carbon technology supplied one-third of total generation in emerging markets, up from 28% in 2015. Hydropower remained the dominant low-carbon source, accounting for 18% of generation in 2024, only slightly below its 19% share a decade earlier. Meanwhile, solar and wind have seen rapid gains, expanding their combined share from just 1.6% to 8.5% over the same period.

Although the share of fossil fuels in power generation has decreased from 72% in 2015 to 67% in 2024, generation from these technologies still grew 4% year-on-year. Coal generation rose 5.4%, largely driven by increased cooling demand in India, which alone accounted for nearly 80% of the increase. Natural gas generation also expanded by 3%, supported by stronger power demand in Egypt, Saudi Arabia and Mexico, which together accounted for 44% of the growth.

Solar and wind are reshaping power systems across emerging markets of all income levels

Top 15 markets in solar and wind by share of installed capacity



Over the past decade, solar and wind have reshaped the power mix across emerging markets, expanding far beyond high-income economies. Progress became more evident across lower and upper-middle income markets. By 2024, fifteen markets – of which six were from the lower-middle income category while five were upper-middle – sourced more than 35% of their capacity from these technologies.

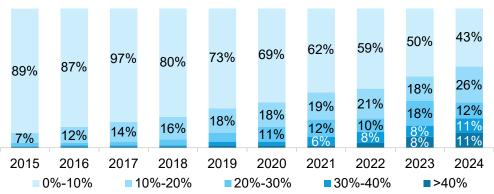
In six African markets – Benin, Namibia, Burkina Faso, Kenya, Senegal and Eritrea – wind and solar account for at least 40% of installed capacity. Together, these markets host around 2.5GW of utility-scale photovoltaic solar capacity and an additional 0.9GW of smallscale solar.

Moldova stands out within this group, as the share of wind and solar in its power mix has increased from just 3% in 2015 to 53% in 2024. This increase, however, was far from linear. Progress remained modest for much of the decade before accelerating rapidly after the onset of the Russia-Ukraine war. The conflict exposed Moldova's dependence on imported Russian natural gas, prompting a strategic shift toward domestic renewables as a means of strengthening energy security.

Source: BloombergNEF. Note: Solar includes utility-scale photovoltaic (PV), small-scale PV and solar thermal.

Solar and wind are over 10% of installed capacity in more than half of emerging markets

Share of emerging markets by solar and wind penetration rates, 2015-2024



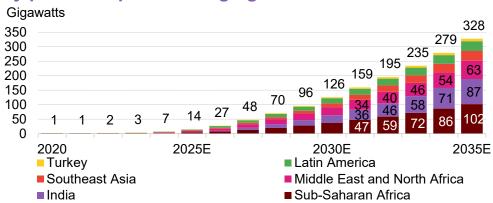
Source: BloombergNEF

The rapid increase of installed renewable capacity in emerging markets has meant a reduction in reliance on fossil fuels. In 2015, wind and solar accounted for less than 10% of installed capacity in nearly 90% of these economies. However, by 2024, that figure had fallen to under half.

To address these challenges, energy storage policies are gradually spreading across emerging markets. Since 2015, 18 of the 92 markets tracked by Climatescope have introduced energy storage deployment targets and 11 more offer fiscal incentives or subsidies. Auctions

As renewable capacity grows, integrating variable generation into existing grids has become a critical challenge. Many markets are now confronting the limits of their transmission networks and appreciating need for flexibility, as intermittent output and even curtailment become more prevalent. In Brazil, which has some of the highest renewable penetration in the world, power demand has not kept pace with solar and wind expansion. As a result, excess generation combined with grid-availability and reliability issues drove curtailment rates to 21% for solar and 14% for wind in the first half of 2025.

Gross cumulative energy storage capacity and forecast by power output in emerging markets

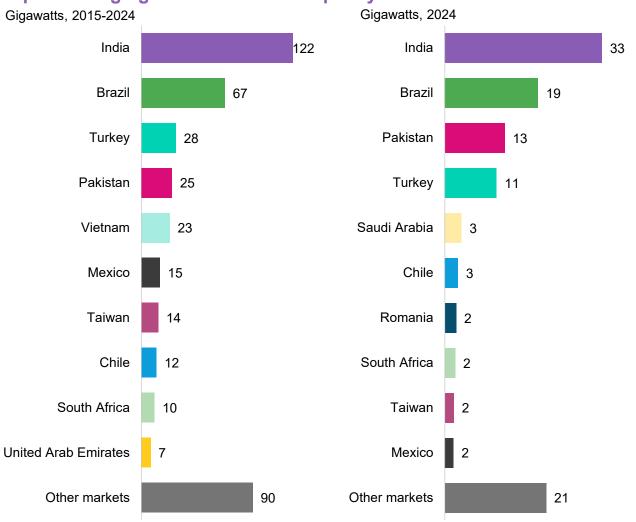


Source: BloombergNEF. Note: For BNEF's global energy storage analysis, see 2H 2025 Energy Storage Market Outlook (web | terminal).

To address these challenges, energy storage policies are gradually spreading across emerging markets. Since 2015, 18 of the 92 markets tracked by Climatescope have introduced energy storage deployment targets and 11 more offer fiscal incentives or subsidies. Auctions dedicated to energy storage have so far been held in India and South Africa, while co-located hybrid solar or wind projects including batteries have been tendered in 17 markets as of mid-2025. BNEF forecasts that by 2035, emerging markets will add over 328GW of storage capacity, supporting system stability and deeper renewable integration.

Pakistan represented 11% of solar capacity additions in emerging markets in 2024

Top 10 emerging markets in solar capacity additions



Despite increasing solar penetration across emerging markets, solar capacity additions remain highly concentrated in a few countries. In 2024, 10 markets together accounted for 80% of total installations, or 90GW out of 111GW installed. India, Brazil, and Pakistan together represented nearly 60% of that.

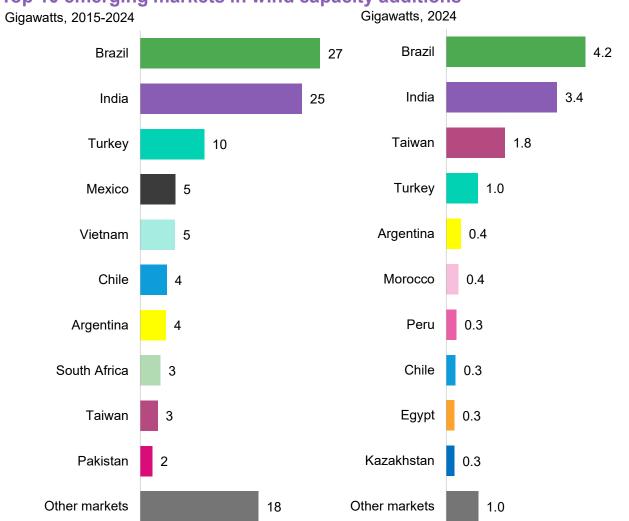
Pakistan experienced a remarkable surge in solar capacity in 2024, adding roughly 13GW and accounting for 11% of all new installations in emerging markets. Persistent electricity shortages and rising grid tariffs over the last three years spurred residential, commercial and industrial consumers to adopt rooftop systems as a form of energy independence.

India has consolidated its position as the leading solar market among emerging economies, adding 122GW over the last decade. This growth was driven by ambitious targets, combined with a competitive auction program that delivered record-low tariffs for utility-scale projects and a targeted scheme for the agricultural sector that encouraged small-scale projects. Complementary rooftop subsidy programs and net-metering policies expanded access for households and small businesses.

Source: BloombergNEF. Note: Solar includes utility-scale photovoltaic (PV), small-scale PV and solar thermal. For full data, see BNEF's Capacity tool (web | terminal).

India, Brazil are home to nearly half of all wind capacity added in emerging markets since 2015

Top 10 emerging markets in wind capacity additions

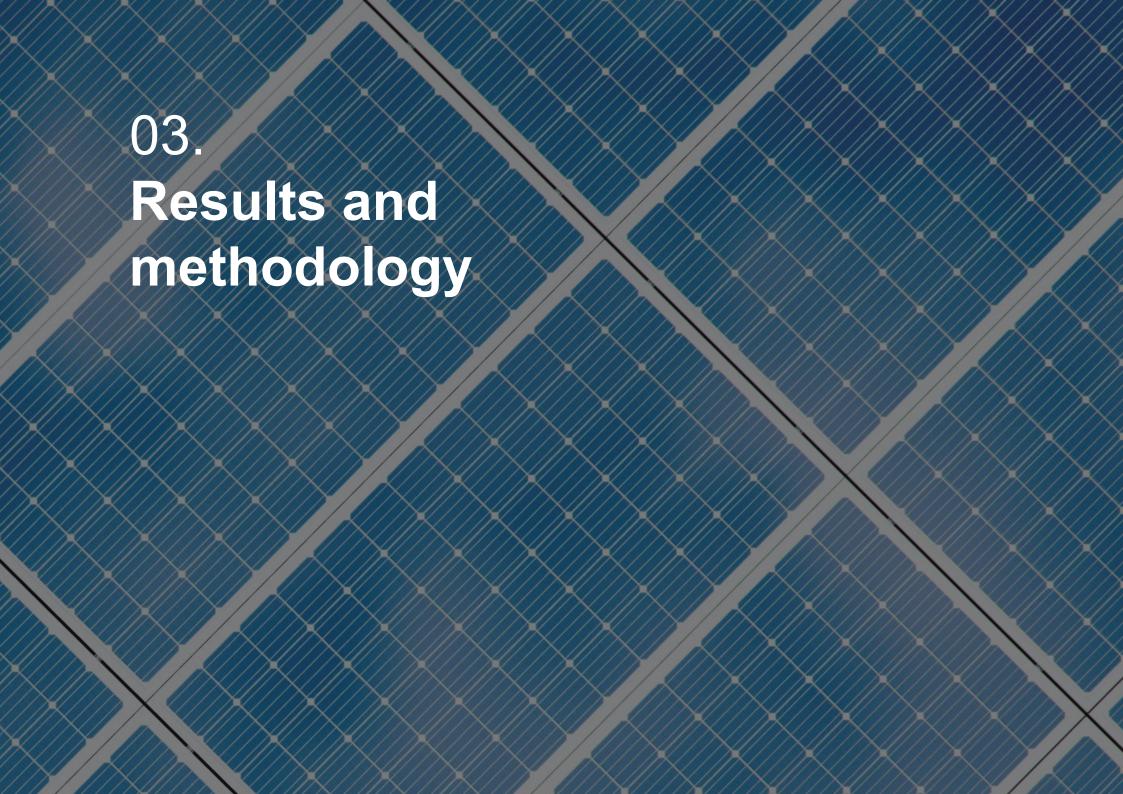


Since 2015, emerging markets have added over 105GW of new wind capacity, more than doubling installed levels from 54GW in 2015 to roughly 151GW in 2024. Although wind remains a core low-carbon technology, its growth has been overshadowed by the rapid rise of solar. For every 1GW of wind deployed in 2024, over 8GW of solar was installed

India and Brazil together accounted for nearly half of all wind capacity added in emerging markets over the past decade. In both countries, clear auction mechanisms and guaranteed offtake agreements have been key in enabling project developers to harness vast wind resources.

By contrast, many emerging markets have seen slower or uneven wind deployment. While financing and permitting challenges played a part in this discrepancy, natural resources were also a major factor: fewer than one-third of the emerging markets surveyed by Climatescope have wind resources strong enough to deliver capacity factors above 30% according to the Global Wind Atlas, limiting project bankability relative to solar.

Source: BloombergNEF. Note: Wind capacity includes both onshore and offshore wind. For full data, see BNEF's Capacity tool (web | terminal).



Climatescope: Tracking energy transition investment opportunities in emerging markets

Climatescope outputs



This report brings together and analyzes data collected by more than 30 BNEF analysts in the first half of 2025. A deep dive into how emerging markets are responding to and driving the energy transition, it offers snapshots of current clean energy policy and finance conditions that can lead to future capital deployment and project development. The Climatescope ranking methodology is built on three key parameters:

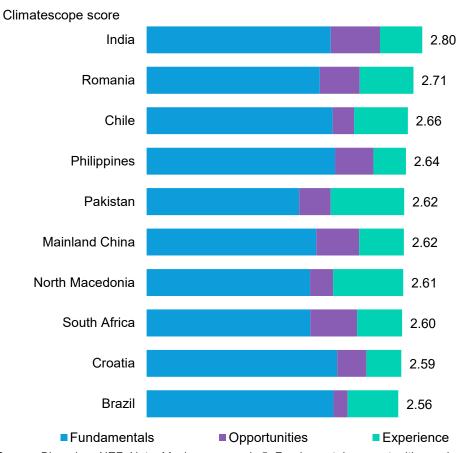
- **Fundamentals** are the policies and market structures that impact investment or deployment in a given market.
- **Opportunities** examine a market's potential to grow its supply of clean power.
- Experience evaluates a market's achievements to date and considers how that experience can drive future build.

Climatescope data is updated annually for all markets at the end of the year. Data collection is done through official sources including utilities, energy agencies, ministries and other governmental entities.

Readers are encouraged to explore the complete ranking, datasets, tools and market profiles on the <u>Climatescope website</u>. For full access to the methodology, see <u>BNEF's Climatescope Code of Conduct</u>.

India holds the top spot for the third year as new entrants reshape the Climatescope top 10 attractiveness ranking

Top 10 emerging markets in the power sector, by Climatescope score



Source: BloombergNEF. Note: Maximum score is 5. Fundamentals, opportunities and experience are the parameters that add up to a market's overall score for clean power. Between them, they encompass over 100 indicators, or individual data inputs collected by Climatescope researchers.

India received the highest Climatescope score for the third year running. A 30% year-on-year jump in clean-energy investment, rising from \$17 billion in 2023 to nearly \$23 billion in 2024, reflects the market's stable policy environment and strong auction schedule.

The composition of this year's top 10 has changed significantly as new markets outperformed traditional leaders such as mainland China and Brazil. Romania climbed to second place, on the back of power-sector reforms.

Chile returned to the top three after accelerating grid expansion and storage programs to reduce curtailment and improve flexibility. While the Philippines and mainland China slipped a few positions, both remain highly attractive markets. Mainland China's record investment volumes continue to anchor its leadership, while the Philippines maintains one of the most comprehensive renewable policy frameworks in the region, pairing auctions, net metering and fiscal incentives with rising electricity demand.

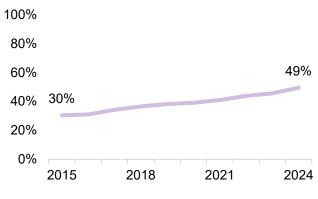
Pakistan joined the top five for the first time, after adding around 13GW of solar capacity in 2024, as grid bottlenecks and high electricity tariffs pushed consumers to install rooftop solar.

Among other economies, North Macedonia, South Africa and Croatia advanced on the back of structural power-market reforms. North Macedonia finished unbundling its state utility and launched new renewable energy auctions, South Africa expanded private participation under REIPPPP and through new corporate power purchase agreements (PPAs), and Croatia simplified grid access rules and permitting for clean power projects.

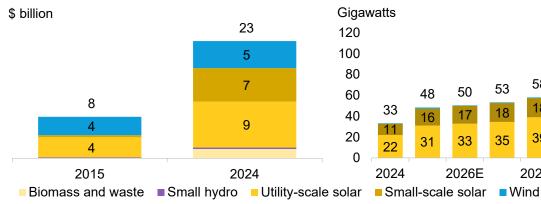
Brazil rounds out the top 10, maintaining its reputation as one of Latin America's most mature electricity markets. However, excess energy supply, rising curtailment and delayed energy auctions have tempered investor sentiment compared with prior years.

India leads the energy transition in emerging markets, with record low-carbon additions and investment

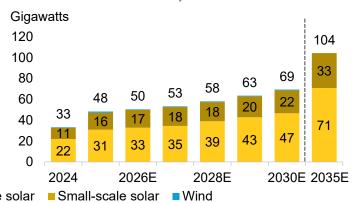
Low-carbon share of India's total installed capacity, 2015-2024



Renewable energy investment in India, 2015-2024



India's yearly solar and wind capacity additions forecast, 2024-2035



Source: BloombergNEF. Note: "E" means estimated. Includes new asset finance for renewables and investments in small-scale solar. Asset finance for renewables include utility-scale solar. onshore wind, offshore wind, co-located projects, biofuels, geothermal, biomass and waste, small hydro and marine. Utility-scale solar includes solar thermal and photovoltaic (PV) projects.

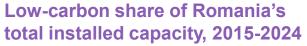
As one of the fastest-growing low-carbon economies among emerging markets. India is the first to top the Climatescope rankings for three consecutive years. Over the past decade, India has played a pivotal role in global renewable energy growth, deploying more than 150GW of low-carbon capacity.

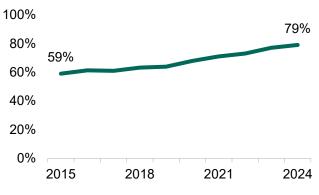
BNEF forecasts the market will triple its wind and solar additions by 2035, from nearly 33GW of solar installed in 2024 to over 100GW added in 2035. Wind is expected to jump from 3.4GW to around 12GW over the same period. Together, the two technologies are forecast to hit 1TW of cumulative installed capacity in 2035.

To meet steadily rising power demand, the government has streamlined renewable auctions, expanded grid infrastructure, and introduced incentives for domestic manufacturing, accelerating the deployment of solar, wind and storage technologies. India's robust policy framework also includes a target to install 500GW of non-fossilfuel power capacity by 2030. It's an ambitious goal, but the market is already on track: renewables account for about 231GW, or 47%, of total installed capacity as of 2024, with annual additions among the highest worldwide.

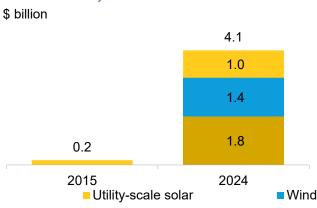
Investment has kept pace with the buildout of clean technologies, rising from \$23 billion in 2024, up from \$8 billion in 2015.

New renewables auctions and Black Sea gas development redefine Romania's role in Europe's energy transition

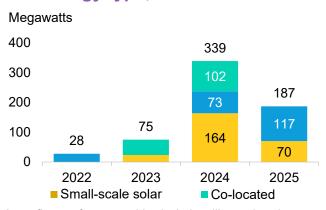




Romania renewable energy investment, 2015-2024



Romania annual PPA capacity by technology type, 2022–2025



Source: BloombergNEF. Note: "E" means estimated. Includes new asset finance for renewables and investments in small-scale solar. Asset finance for renewables include utility-scale solar, onshore wind, offshore wind, co-located, biofuels, geothermal, biomass and waste, small hydro and marine. Utility-scale solar includes solar thermal and photovoltaic (PV) projects.

Romania's new wind and solar subsidy auctions, launched in September 2024, could revitalize its renewable-energy sector after nearly a decade of stagnation. Under the new support scheme, the country aims to install 10GW of onshore wind and solar capacity by 2030 through contracts-for-difference (CfDs).

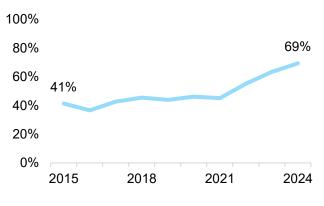
At the same time, natural gas remains a key part of Romania's economic plans. In 2024, the nation was the EU's largest gas producer and is set to increase production in 2027 with the start of the Neptun Deep project, the largest gas development in the Romanian Black Sea. The field positions Romania to become Europe's leading gas producer by the late 2020s. As Russia's gas exports to Europe have collapsed, Romania is stepping up to help fill the regional supply gap and reinforce continental energy security through the BRUA gas pipeline.

With much of its gas production directed to supply regional demand, Romania must accelerate domestic clean power deployment to meet its own needs. The government strengthened its 2030 renewables target for gross final energy consumption to 38.3%, up from 30.7% in the 2019 plan. That would require 15GW of installed renewable capacity. As of 2024, Romania had nearly 9GW of installed wind and solar, and BNEF forecasts Romania will actually exceed its goal, installing more than 20GW of new capacity by 2030.

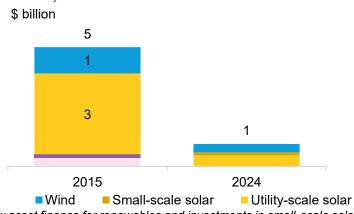
Furthermore, after years of dormancy, corporate demand for green electricity has reemerged, supported by new CfD mechanisms and clearer frameworks for power purchase agreements (PPAs). Through October 2025, companies announced 187MW of renewable PPAs, almost a sevenfold increased from the 28MW signed in 2022, signaling renewed private-sector confidence in Romania's clean-energy market.

Chile enters a new stage of its energy transition with record renewables and growing storage capacity

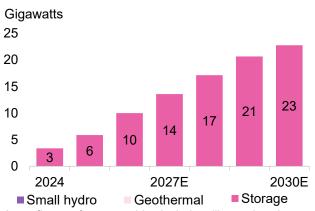
Low-carbon share of Chile's total electricity generation, 2015-2024



Renewable energy investment in Chile, 2015-2024



Chile's storage forecast, 2024-2030



Source: BloombergNEF. Note: "E" means estimated. Includes new asset finance for renewables and investments in small-scale solar. Asset finance for renewables include utility-scale solar, onshore wind, offshore wind, co-located projects, biofuels, geothermal, biomass and waste, small hydro and marine. Utility-scale solar includes solar thermal and photovoltaic (PV) projects.

Over the past decade, Chile has transformed its power system into one of the cleanest in Latin America, cutting its reliance on fossil fuels from around 60% of generation in 2015 to just under 30% in 2024. The government aims for 80% of generation from clean sources by 2030 and 100% by 2050. The market is well on track to achieve these targets, as the government has a coordinated plan to phase out coal power plants and has promoted a constant expansion of wind and solar additions. In 2024 alone, Chile added a record 3.1GW of new wind and solar capacity, the highest annual total in its history.

Chile ranked among Climatescope's top three emerging markets from 2021 to 2023, but its position fell as renewable growth outpaced grid expansion. By mid-2024, wind and solar curtailment averaged 12%, up from 6%, and renewables investment was falling. This pushed Chile

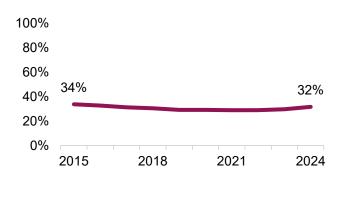
down to seventh place in the 2024 ranking.

Yet these challenges have had a silver lining of sorts, as they have spurred investment in energy storage. The market is set to double storage installations in 2024, following a record 0.5GW/2.3 gigawatthours (GWh) added this year to enhance grid flexibility and reliability.

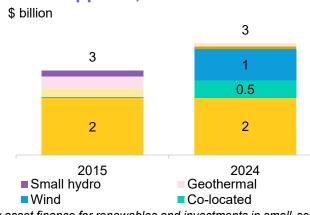
New transmission planning initiatives and large-scale battery projects are beginning to ease congestion and improve reliability, marking a new phase in Chile's energy transition. With renewable penetration already among the highest in the region, the market's next challenge lies in modernizing its grid and integrating storage to accommodate further growth. Maintaining investor confidence will depend on how effectively Chile can execute these upgrades and unlock the next wave of renewables expansion.

Philippines climbs to fourth place as policy enforcement and strong demand boost renewables

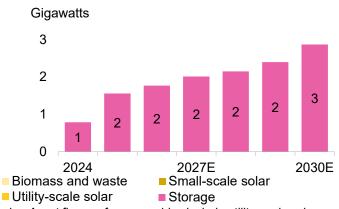
Low-carbon share of the Philippines' total installed capacity, 2015-2024



Renewable energy investment in the Philippines, 2015-2024



The Philippines' storage forecast, 2024-2030



Source: BloombergNEF. Note: "E" means estimated. Includes new asset finance for renewables and investments in small-scale solar. Asset finance for renewables include utility-scale solar, onshore wind, offshore wind, co-located projects, biofuels, geothermal, biomass and waste, small hydro and marine. Utility-scale solar includes solar thermal and photovoltaic (PV) projects.

The Philippines has rapidly become one of Asia Pacific's most attractive clean-energy markets, advancing from 20th place in Climatescope 2021 to fourth place this year. After a period of stagnation on the renewables deployment front, the market regained momentum in 2023 and surged in 2024, as developers rushed to complete projects awarded in the Green Energy Auction Program (GEAP) rounds of 2022 and 2023.

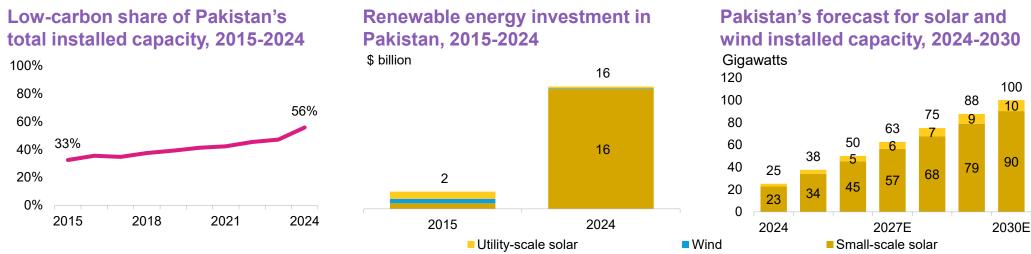
This rebound also reflects the enforcement of the Renewable Portfolio Standard (RPS), which requires electricity suppliers to source an increasing portion of their power from renewables. The 2025 compliance rate of 13.9% will take effect next year, ensuring a steady rise in clean-power demand and new investment opportunities.

The Philippines already stands out as the only emerging market in Asia Pacific with all major renewable-energy policies in force, including auctions, net-metering, fiscal incentives and long-term renewable

targets. This strong policy foundation has supported consistent clean energy growth. Between 2015 and 2024, clean-energy investment grew from \$2.6 billion to \$3.4 billion, driven by rising electricity consumption, which has expanded 70% over the past decade.

The market's energy mix continues to diversify as solar and wind additions accelerate, and rapid renewable growth is now spurring energy storage deployment, which is emerging as a key enabler of grid flexibility. In 2025, the Philippines is expected to add nearly 493MW/1,514 megawatt-hours (MWh) of new storage capacity, a 137% increase from 2024 levels. BNEF forecasts that by 2035, total installations could reach 4.5GW/10.5GWh, roughly six times 2025's cumulative capacity, highlighting the market's transition toward a more flexible and resilient power system.

Pakistan's rooftop-solar surge redefines its energy mix



Source: BloombergNEF. Note: "E" means estimated. Includes new asset finance for renewables and investments in small-scale solar. Asset finance for renewables include utility-scale solar, onshore wind, offshore wind, co-located projects, biofuels, geothermal, biomass and waste, small hydro and marine. Utility-scale solar includes solar thermal and photovoltaic (PV) projects.

Over the past decade, Pakistan's power sector has undergone a profound transformation toward cleaner energy. In 2014, the market faced chronic power shortages, frequent blackouts and heavy dependence on imported fossil fuels. Since then, policy support – especially a net-metering program – and rapidly falling solar costs have turned Pakistan into one of Asia Pacific's fastest-growing solar markets.

As electricity tariffs more than doubled over the past three years, households and businesses increasingly installed rooftop solar paired with battery systems to lower energy costs and improve reliability. The combination of affordability, energy independence and short construction times has made solar a mainstream power source in urban and industrial centers. As a consequence, cumulative solar capacity

boomed to 12.5GW in 2023 from 1GW in 2015, and then doubled to 25GW in 2024. Clean-energy investment, meanwhile, jumped from \$2 billion to \$16 billion.

Yet the rapid shift toward self-generation also highlights structural weaknesses in Pakistan's grid, including limited flexibility, voltage instability and underinvestment in transmission. Addressing these issues will determine whether Pakistan's solar boom becomes a foundation for long-term sustainability, or a short-term response to economic stress and high energy prices.

04. Appendix



Market coverage (1)

As of 2025, Climatescope individually covers nearly every market with over 2 million inhabitants worldwide. From the 140 markets that fall under Climatescope's purview, 110 are emerging economies and 30 developed ones:

- Developed markets are defined as OECD markets minus Chile, Colombia, Costa Rica, Mexico and Turkey; these five are part of the OECD but remain attractive emerging markets for clean energy development.
- Emerging markets and developing economies include all non-OECD markets plus Chile, Colombia, Costa Rica, Mexico and Turkey.

Regions	Trade bloc	Markets
Africa	Emerging markets and developing economies	Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Central African Republic*, Chad, Democratic Republic of the Congo*, Egypt, Eritrea, Ethiopia*, Ghana, Guinea, Ivory Coast, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali*, Mauritania, Morocco, Mozambique, Namibia, Niger, Nigeria, Republic of the Congo, Rwanda, Senegal, Sierra Leone, Somalia*, South Africa, South Sudan*, Sudan*, Tanzania, Togo, Tunisia, Uganda, Zambia, Zimbabwe
Asia Pacific	Emerging markets and developing economies	Armenia, Azerbaijan, Bangladesh, Cambodia, Georgia, India, Indonesia, Kazakhstan, Kyrgyzstan, Laos, Mainland China, Malaysia, Mongolia, Myanmar*, Nepal, Pakistan, Philippines, Singapore, Sri Lanka, Taiwan, Tajikistan, Thailand, Turkmenistan, Uzbekistan, Vietnam
Asia Pacific	Developed markets	Australia, Japan, New Zealand, South Korea

Note: *These markets are not included in the Climatescope ranking as conflicts and sanctions have limited data availability.

Market coverage (2)

Regions		Markets
Europe	Emerging markets and developing economies	Albania, Belarus*, Bosnia and Herzegovina, Bulgaria, Croatia, Moldova, Montenegro*, North Macedonia, Romania, Russia*, Serbia, Turkey, Ukraine*
Europe	Developed markets	Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland*, Ireland, Italy, Lithuania, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, UK
Latin America	Emerging markets and developing economies	Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Jamaica, Mexico, Nicaragua*, Panama, Paraguay, Peru, Uruguay, Venezuela*
Middle East	Emerging markets and developing economies	Bahrain*, Iraq*, Jordan, Kuwait, Lebanon*, Oman, Palestine*, Qatar, Saudi Arabia, United Arab Emirates
Middle East	Developed markets	Israel*
North America	Developed markets	Canada and US
Rest of World	Rest of World	Rest of World

Note: *These markets are not included in the Climatescope ranking as conflicts and sanctions have limited data availability.

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