Financing 3xRenewables by 2030

Mapping global capital needs

Global Renewables Alliance

Summary of Key Findings and Policy Recommendations

The tripling of renewable power generation capacity by 2030 in conjunction with doubling energy efficiency progress, are key to peaking global energy sector carbon dioxide emissions by 2030 and keeping the Paris Agreement goals alive.

In 2024, renewable energy saw record growth, with 582 GW of new capacity added - a 20% increase from 2023 - and investment in new renewable power capacity reaching a record USD 624 billion, up 7% year-on-year.

However, this was still 462 GW less than the annual average required to meet the tripling goal by 2030. The gap to the tripling goal continues to widen.

Scaling-up financial flows to renewable power is crucial to closing the gap and achieving the 3xRenewables goal. Global financial flows to renewable power must more than double - from USD 624 billion in 2024 to USD 1.5 trillion per year, every year to 2030.

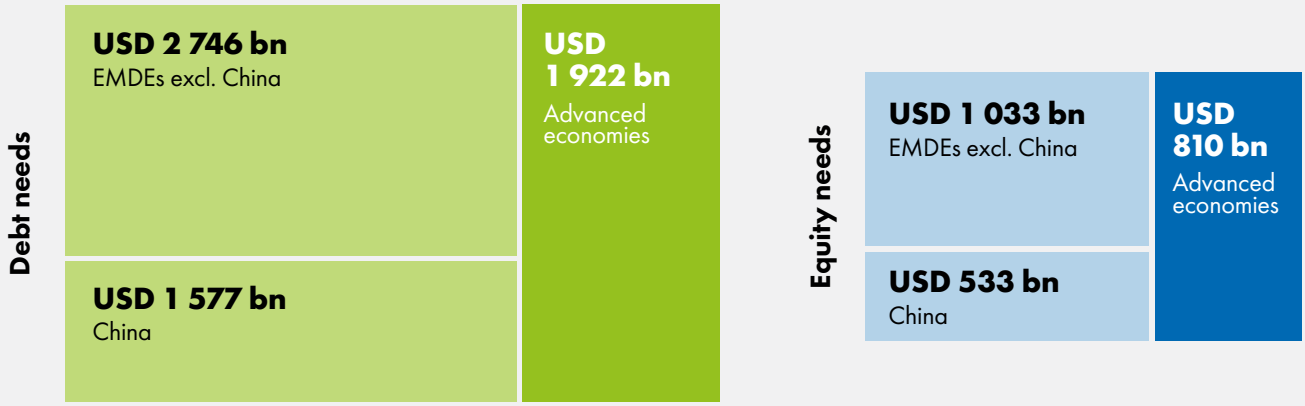
This global view hides an even greater challenge for emerging markets and developing economies (EMDEs). In 2024, EMDE's excluding China received just 17% of global investment in renewable power.

This share of finance going to EMDEs (excluding China) is well below the estimated 43% required to reach the tripling goal. EMDEs excluding China will need to raise USD 2.7 trillion from debt markets and USD 1.0 trillion in equity between 2025 and 2030 (inclusive) to achieve the tripling goal.

In EMDEs excluding China investment flows need to increase five-fold over 2024 levels. In parallel, efforts are needed to reduce the cost of finance, which can be two to five times higher than in Advanced Economies and reduce project viability and increase electricity costs in some of the poorest countries.

Achieving the global goal of tripling renewable power by 2030 will require concerted action by policymakers, the financial community, and industry to understand the challenges to financing renewable projects in different markets and implement solutions to scale finance flows and lower financing costs.

Debt and equity needed to triple renewable power by 2030



Source: COP28, IRENA and GRA, 2023; IRENA, et al., 2025; and EME Consulting

Policy Recommendations

Provide investor certainty and policy support to derisk projects, while addressing permitting and grid connection uncertainty and delays.

Leverage public finance more effectively and direct a greater share (including direct investments, subsidies, export credit guarantees, and concessional financing) to renewable energy and grid infrastructure, as well as flexibility.

Create innovative financing models tailored to the needs of underinvested countries, using tools such as blended finance, green bonds, and risk mitigation strategies to scale up financial flows to EMDEs at lower cost.

Adopt a comprehensive definition of investment risk within public and private institutions that encompasses environmental and social externalities, aligning financial decision-making with broader public and social goals.

Increase discussions and collaboration among the 'Trialogue' of stakeholders from government, industry and the financial community to identify the specific challenges to unlocking financial flows to renewable power projects and determine actor-specific recommendations.

Next Steps

Policy makers need to be aware that the risk-return environment for debt and equity differs, while it also varies across technology, market and provider of debt and equity. o meaningfully impact the debate on financing renewables in EMDEs, focus should go to:

Convening trialogue stakeholders by gathering policymakers, industry, and the financial community, to identify the specific challenges in raising debt and equity by technology in specific markets/regions, taking into account the variations in risk-return environments for debt and equity of different stakeholders.

Develop action plans and identify funding sources to help boost the pipeline of bankable renewable power projects in EMDEs and the flow of debt and equity at lower cost. Specific emphasis should be placed on using scarce public finance strategically to support early-phase project development, where risks are often high, while crowding in private sector debt at scale and lower cost through guarantees, first-loss tranches, and blended finance mechanisms.

This document refers to data and analysis undertaken by GRA. It builds on IRENA's analysis that has estimated the investment in physical infrastructure (GW) and investment flows (USD) required to meet the tripling goal by increasing the country/region-level detail and using a global database of historical renewable project debt-to-equity ratios to translate this into the call on debt and equity markets.

The analysis is designed to help quantify the financing challenge and support stakeholders in diving deeper into what is needed to unlock debt and equity finance for renewable power projects in different markets.