"Baku to Belém Roadmap to 1.3T"

**International Energy Agency (IEA) submission**

**March 2025**

The International Energy Agency (IEA) welcomes the opportunity to provide input to support development of the "Baku to Belém Roadmap to 1.3T" and the scaling of public and private financing to developing country Parties for climate action from all sources consistent with the goals of the Paris Agreement. The IEA supports governments and industry with analysis and policy advice on how to accelerate investment in clean, secure and affordable energy systems, notably in emerging markets and developing economies (EMDE), based on robust tracking of energy-related capital flows and the cost of capital.

Globally, the IEA estimates that total clean energy investments reached USD 2 trillion in 2024, but only 15% flowed to EMDE (other than China), despite these countries representing two-thirds of the world's population. At the same time, the IEA estimates that clean energy investment in EMDE other than China will need to increase more than sixfold by 2035 in a 1.5 degree pathway, compared to a doubling of spending in advanced economies and China.

The IEA conducted extensive analysis on how to scale up clean energy investment in EMDE consistent with the goals of the Paris Agreement in support of Brazil's 2024 G20 Presidency, developing a "Roadmap to Increase Investment in Clean Energy in Developing Countries" (hereinafter: the Brazil G20 Clean Energy Investment Roadmap). Launched in November 2024 at COP29 Baku, the Brazil G20 Clean Energy Investment Roadmap fed into and benefitted from discussions under the Brazilian G20 Presidency in the Energy Transitions Working Group and Task Force for the Global Mobilization against Climate Change. The Brazil G20 Clean Energy Investment Roadmap sets out an action agenda for governments, National Development Banks, development finance institutions and international institutions to significantly boost clean energy investments in EMDE over the next decade, including addressing the high cost of capital in EMDE – well over twice as high as in advanced economies – and tripling concessional funding to mobilise domestic and international capital. At the G20 Rio Summit, some G20 Leaders explicitly referred to leveraging the Brazil G20 Clean Energy Investment Roadmap.

The IEA's work is focused on lifting the persistent barriers faced by EMDE to accessing affordable capital, such as high financing costs related to real and perceived project risk or inadequate regulatory frameworks. The three key actions needed to help achieve a rapid scale-up in clean energy investments are: i) policy planning and capacity development; ii) interventions to enable clean energy projects to reach financial close by addressing risks and barriers to investment; and iii) data reliability and availability.

This submission highlights latest analysis from the IEA, notably key takeaways from the Brazil G20 Clean Energy Investment Roadmap, and comprehensive IEA energy-sector data and policy recommendations that can support the objectives of the "Baku to Belém Roadmap to 1.3T". This submission focuses on questions (b) and (d) of the call for inputs. The IEA also offers its multilateral convening capability to the COP29 and COP30 Presidencies in mobilising relevant actors to support

the development and implementation of the "Baku to Belém Roadmap to 1.3T", including through the COP 30-IEA High-Level Energy Transition Dialogues.

### (b) Which topics and thematic issues should be explored to inform the Roadmap, within the scope of the mandate?

Scaling up climate finance to EMDE requires not only increasing total financing but also reducing the cost of capital, enhancing policy and institutional frameworks, and targeting concessional finance where it has the highest impact.

In the energy sector, the Brazil G20 Clean Energy Investment Roadmap provides a structured approach to scaling up financing to EMDE. While the "Baku to Belém Roadmap to 1.3T" takes a broader view of climate finance, the Brazil G20 Clean Energy Investment Roadmap as well as IEA's broader work on energy investments offer quantified, concrete and timebound actions focused on:

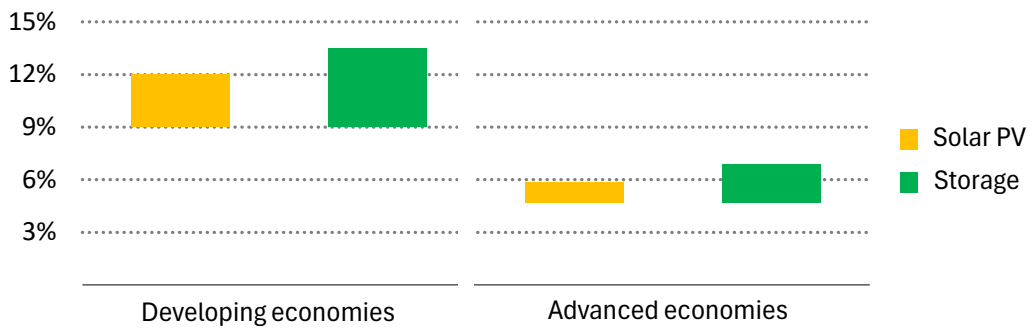
- Reducing the cost of capital and de-risking clean energy projects;
- Strengthening policy, planning, and capacity-building;
- Targeted interventions tailored to specific technology and market risks to enable financial close.

Incorporating these considerations in the "Baku to Belém Roadmap to 1.3T" can support the development of a clear focus on clean energy finance that is strategically mobilised, efficiently allocated and effectively deployed for EMDE. The following sub-sections offer some insights on the detailed suggested interventions.

#### 1) Addressing the high cost of capital in EMDE

The high cost of capital remains a significant barrier to scaling clean energy investment in EMDE well over twice as high as in advanced economies. Investors demand higher returns in these economies due to real and perceived risks, including political instability, currency fluctuations and inadequate regulatory frameworks.

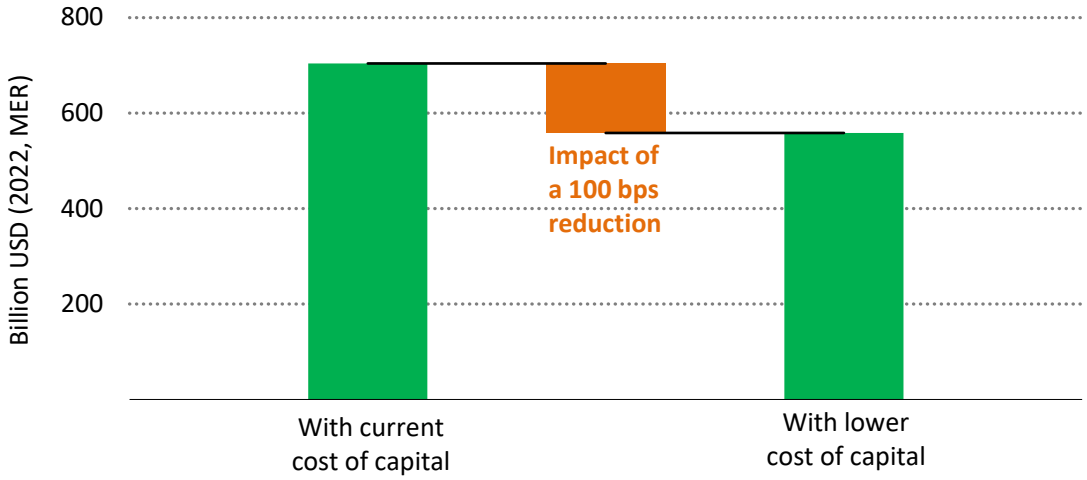
**Figure 1: Cost of capital ranges for solar PV and storage taking final investment decisions in 2022**




Source: IEA (2024), Reducing the Cost of Capital

According to the IEA's 2024 report on Reducing the Cost of Capital, lowering the cost of capital by one percentage point could reduce annual average clean energy financing costs in emerging market and developing economies by USD 150 billion.

**Figure 2: Effect on annual average EMDE financing costs to 2050 in the Net Zero Emissions by 2050 Scenario of a 1 percentage point reduction in the cost of capital**




Source: IEA (2024), Reducing the Cost of Capital IEA. CC BY 4.0.

Notes: bps = basis points; 100 basis points = 1 percentage point. The Net Zero Emissions by 2050 Scenario is a normative scenario that shows a pathway for the global energy sector to achieve net zero $CO_2$ emissions by 2050.

Reducing the cost of capital and improving risk-adjusted returns for clean energy projects in EMDE depend on improving access and transparency around project data to address the perceived risks and mitigating sector- and country-related risks. It would be helpful if the "Baku to Belém Roadmap to 1.3T" provided actionable steps to address these risks, first from the national level, focused on energy planning, and developing capacities and policies that will create environments amenable for long-term clean energy investments. Furthermore, the "Baku to Belém Roadmap to 1.3T" could also include guidance on the most effective financial instruments and de-risking mechanisms that have been critical to mobilise investments for different clean energy projects. Potential steps are set out in the following sections.

**2) Strengthening energy planning for scalable and bankable clean energy projects**

Clear energy planning and strong policy frameworks are fundamental to mobilising clean energy investment. Countries with well-defined national energy strategies, aligned with their nationally determined contributions (NDCs), reduce investor uncertainty, improve project bankability, and lead to lower financing costs. The Brazil G20 Clean Energy Investment Roadmap, as well as the IEA-IFC 2023 report on Scaling Up Private Finance for Clean Energy in Emerging and Developing Economies, highlight that countries with transparent policy frameworks, competitive bidding mechanisms, and robust contract enforcement can mobilise capital at lower costs. However, many EMDE still face policy gaps, weak institutional capacity, and a lack of reliable data, which increase investment risks.

To address these barriers, the "Baku to Belém Roadmap to 1.3T" could focus on developing tools and provide best practices to enable EMDE country Parties to:

- Strengthen their national energy planning to align clean energy investment with development priorities, with clear project pipelines and transparent procurement processes, ensuring alignment with long-term transition goals.
- Improve project preparation facilities. Strengthening feasibility studies and risk assessments would allow EMDE countries to improve project bankability and attract financing. In addition to providing support for project preparation, support for project structuring can also help to attract additional capital from large institutional investors.
- Enhance regulatory frameworks to create stable, predictable conditions for investors. Improving permitting processes, establishing fair and transparent tariff structures, can support the creation of a stable regulatory framework to attract investments.
- Expand access to high-quality investment data to improve risk assessment and capital allocation. Developing standardised cost of capital tracking, project performance data, and financial risk indicators would help reduce perceived risks and unlock financing. This would include expanding initiatives such as the IEA's Cost of Capital Observatory, which would equip investors with useful data to inform investment decisions.

Designing well-structured national policies and reliable data are critical to de-risking clean energy investment and enabling greater mobilisation of both domestic and international capital. These measures, combined with international collaboration and targeted financial instruments, can help lower the cost of capital and scale up clean energy investments in EMDE.

**3) De-risking solutions and innovative instruments to unlock investment and international support**

Achieving a sixfold increase in clean energy investments in EMDE is a major task. Developing countries alone will not have enough capital domestically to fund this rapid growth and meet other developmental goals. Greater international support will be needed to meet this funding gap. The Brazil G20 Clean Energy Investment Roadmap estimates that concessional funding needs for the energy sector transformation in EMDE is at around USD 115 billion annually in 2030 - 2035. This represents more than a tripling in concessional funding by 2030 compared with current levels of support. To meet investment needs, simply having more concessional finance is insufficient—it must be allocated strategically to mobilise the trillions needed.[1]

The Brazil G20 Clean Energy Investment Roadmap identifies three categories of investment approaches that can help ensure that clean energy finance is strategically mobilised and effectively allocated, based on regional and technology specific requirements:

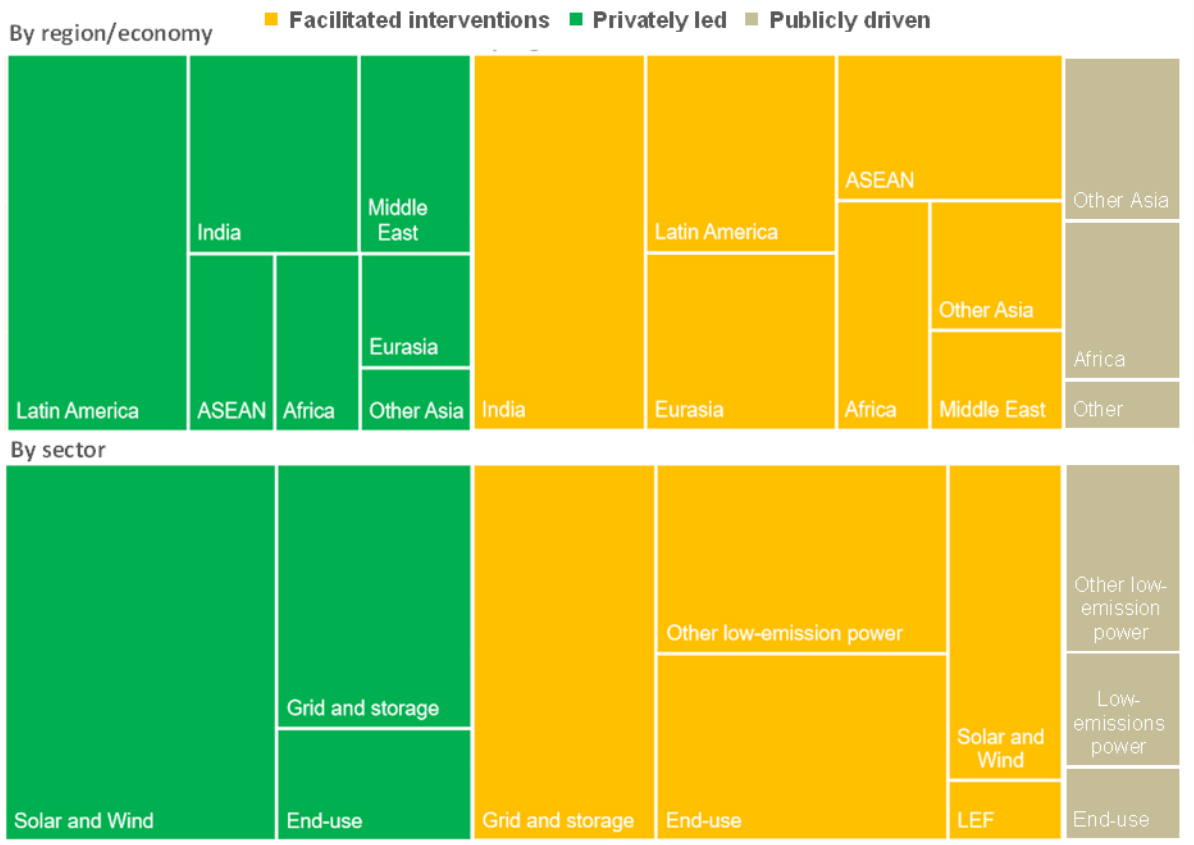
- **Privately led investments** should be geared towards channelling capital into relatively low risk and mature technologies, such as solar and onshore wind in countries with relatively good credit ratings. These markets can mobilise domestic and international private capital with minimal public intervention, provided that strong enabling policies are in place.
- **Facilitated interventions**, making up the bulk of investments in 2035, cover interventions on technologies that have reached commercial maturity that have yet to be widely established

[1] G20 Rio de Janeiro Leaders' Declaration

in developing countries and needed additional de-risking for the first projects or in nascent technologies in regions with relatively low country risk.

- **Publicly-led investments**: investments in the LDCs with low credit ratings, where commerical capital is either absent or too costly to access, or in nascent technologies that require substantial public support to lower costs.

**Figure 3: Investment spending across the three clean energy groups in the 1.5 °C scenario in 2035**




Source: IEA (2024), Roadmap to Increase Investment in Clean Energy in Developing Countries IEA. CC BY 4.0.
Note: ASEAN=Association of Southeast Asian Nations; LA = Latin America; LEF = low-emissions fuels; LEP = low-emissions power.

The Brazil G20 Clean Energy Investment Roadmap emphasises that well-structured de-risking instruments can mobilise USD 3-7 of private capital per dollar of public finance, demonstrating the potential of targeted interventions to scale clean energy investment. The "Baku to Belém Roadmap to 1.3T" could provide tools and examples of good practices for EMDE to create more attractive investment conditions, accelerating the deployment of clean energy while reducing reliance on public funding.

### (d) Which multilateral initiatives do you see as most relevant to take into account in the Roadmap and why?

The IEA works with multiple member economies, association countries and a broader set of government partners in supporting efforts to increase energy investment globally, including in EMDE.

The IEA's analytical work also benefits from insights from ongoing engagement with other international fora addressing mobilising finance, supporting energy transition planning, and facilitating international collaboration.

The COP30 High-Level Energy Transition Dialogues series to be organised with the Brazilian COP30 Presidency this year provides an opportunity to support the "Baku to Belém Roadmap to 1.3T" as a strong basis for scaling the necessary clean energy investment through global collaboration. The OECD-IEA Climate Change Expert Group (CCXG) brings together climate negotiators and experts from a range of developed and developing countries to engage constructively on key topics in the international climate negotiations and represents a further potential forum for dialogue on the "Baku to Belém Roadmap to 1.3T". The IEA's Clean Energy Transitions Programme supports emerging and developing economies through direct and multilateral engagement on a range of energy issues, including accelerating clean energy transitions by fostering enabling environments and developing investment-ready strategies.

The IEA is also engaging closely with initiatives such as the Global Clean Power Alliance, Global Coalition for Energy Planning and Global Energy Transitions Forum among other entities on potential for finance-relevant joint events and to explore potential synergies on work to support investment in clean, secure and affordable energy systems.

The IEA offers its support to the COP29 and COP30 Presidencies in convening and engaging Parties and relevant international stakeholders in support of the "Baku to Belém Roadmap to 1.3T", building on its central role as a global convener and its existing collaboration with other international fora in the area.

### Selected resources

- **Updated annually**
  - World Energy Outlook 2024
  - World Energy Investment 2024

- **Individual reports**
  - G20 Roadmap to Increase Investment in Clean Energy in Developing Countries
  - Scaling Up Private Finance for Clean Energy in Emerging and Developing Economies
  - From Taking Stock to Taking Action

- **Data products**
  - Cost of Capital Observatory
  - Government Energy Spending Tracker