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FINANCING A JUST, ORDERLY AND EQUITABLE TRANSITION

ENERGY IN CONTEXT SERIES

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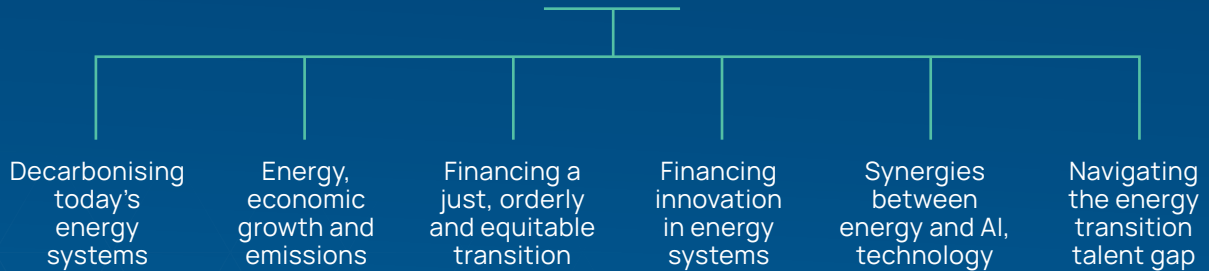
▶ WHAT IS THE ENERGY IN CONTEXT SERIES?

The transformation of the world's energy system offers a unique opportunity for economic growth, with the energy sector driving global advancement.

ADIPEC's **Energy in Context** series presents high-value briefs and case studies that showcase progress, foster dialogue and fast-track innovation to accelerate the energy transition.

The series explores key pillars driving the industry's transformative journey towards a secure, equitable, and sustainable energy future.

KEY PILLARS OF ADIPEC



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No one left behind: Financing a just, orderly and equitable transition

The world is facing a complex challenge in the form of the global energy transition – the necessary transformation from our current primarily fossil fuel-based energy system to one that is sustainable.

Beyond simply achieving energy sustainability, we also need to ensure that the transformation is equitable, leaving no group behind. This requires public engagement, collaboration, innovation, and most importantly, funding.

Given the range of needs, available resources, risks, and obstacles, a nuanced approach is needed to fund the energy transition in economically challenged countries to ensure everyone is on an effective route to achieving their decarbonisation goals.

This will enable business and country leaders to unlock unprecedented investment opportunities at company, state and global levels while creating and integrating the transformative energy solutions the world needs as a whole.

A photograph showing three small green seedlings with two leaves each, growing out of a mound of dark brown soil. To the right of the seedlings are several stacks of gold coins, with the tallest stack being the most prominent. The background is a soft, out-of-focus green, suggesting a natural setting. The image is overlaid with a white geometric pattern of lines forming hexagons and triangles.

► Harnessing the developing world's untapped clean energy

In late 2022, the World Bank, the International Energy Agency (IEA) and other partners, including the United Nations, called for developed economies to provide more support to drive energy and renewables sectors in developing economies.

This included Africa, which the IEA said has 60% of the world's best solar resources yet currently only 1% of solar generation capacity.

The World Bank's Global Solar Atlas described Africa's solar potential as a "unique opportunity" to provide affordable, reliable and sustainable electricity to "a large share of humanity where improved economic opportunities and quality of life are most needed".

Data specialist Statista previously ranked Africa ahead of Central and South America, North America, Asia, Oceania, Europe and Russia for long-term potential solar energy output, but said unlocking potential would involve multiple governments and partners working together.

In the 2022 Africa Energy Outlook, the IEA said the global clean energy transition holds "new promise" for Africa's economic and social development amid declining clean technology costs and shifting global investment.



LAC nations are also rich in fossil fuels and renewable energy, besides minerals critical to clean energy technologies.

This includes biofuels in Brazil, hydropower in Brazil, Venezuela, Mexico, Colombia, Argentina and Paraguay, solar and wind resources in Brazil, Mexico, Chile and Argentina, and vast oil and natural gas resources in Venezuela, Brazil, Colombia, Argentina, Mexico, and Guyana.

Today the LAC represents 8% of the global population and 7% of the global economy, but can play an “outsized role” in the new energy economy with “all the ingredients for secure, affordable and rapid transitions”, the IEA has said.

ASEAN nations have seen green energy resources steadily climb as power generation has tripled over the past 20 years.

Malaysia and Vietnam rank among the world's largest solar modules makers, Laos is a major regional hydropower player, while Indonesia and the Philippines possess almost one-quarter of global geothermal generation capacity.

The region is also rich in raw materials required for clean energy products, particularly in Indonesia, Myanmar, the Philippines and Thailand.

The World Economic Forum says to capitalise on these advantages requires regional leaders to show unwavering commitment to supporting and funding the green agenda*.

“Investors will be looking for energy sector reform, including the dismantling of fossil fuel subsidies, and a hospitable investment and regulatory climate...important because international support and external investment will reduce some of the financial burden and risk that comes with developing and scaling up new technologies,” the WEF has said.⁴

* Join the **ADIPEC Finance & Investment Conference** session “*Clean energy investment outlook: the future ahead*” to hear leading investors discuss what is being done to overcome the challenges for clean energy investment.

► Inclusive representation in decision-making

The transition will not be truly global unless every society is able to make the necessary changes. And feel the effect.

Columbia University's Journal of International Affairs said a just and equitable energy transition is not a "one-size-fits-all prescription", but rather an understanding that economies at differing stages of development will require different solutions to grow their economies while developing along a low-carbon pathway.⁵

That is why leaders from public and private entities must strive for and ensure equal representation from across the Global North and Global South.

Only then can there be a holistic exploration of the complex and often unique challenges faced by a vast range of communities and populations, each with different and shifting energy needs, or geographical dilemmas.

Creating a platform that will bring together and connect actors from the energy, technology and financial communities in both hemispheres will help pave the way towards a scenario where investments reach all.

An example of this type of collaboration was seen in the run-up to COP26 in 2021. Then, the Energy Transition Council (ETC), launched by the UK COP Presidency, worked with countries such as Nigeria, Kenya, Egypt, Vietnam, Morocco, and Indonesia, to bring governments, donor countries, and development finance institutions together to make clean energy transitions more affordable and attractive.

Another positive example took place in 2022 when African ministers at the Sustainable Energy for All (SEforALL) Global Forum in Kigali began defining what a just and equitable energy transition would mean for their region. The resulting Kigali Communiqué outlined agreed-upon transformative actions towards achieving SDG7, a discussion that continued at the United Nations General Assembly (UNGA), and COP27 in Egypt.

► Progress fuelled by community dialogue



* Join the **ADIPEC Strategic Conference** session: *“Energy access: the key to a equitable energy transition and economic opportunity for all”* to examine the role of governments, the private sector and non-governmental organisations in creating the right solutions for a diversified energy supply for all.

While collaborative and inclusive conversations and collaborations at the global level are critical to securing finance for an equitable energy transition, so too is inclusion at the community level.

Keeping the lights on and homes heated or cooled in the most sustainable way is only one aspect of the energy transition equation. Ensuring societies overall experience the commercial benefit of this sustainable energy progress is key to securing public backing and inclusion. This calls for dialogue and potential partnerships across many stages.

There is a need for creating tangible links between primary decision-makers in public and private sectors, as well as civil society, to enact and deliver solutions that fill the finance gap so the transition can be deliverable and inclusive*.

This also involves interacting with the collective voice of the youth who will continue to motivate, steer and ultimately inherit the retooled energy systems of tomorrow.

► Understanding complexity and enabling customised paths

The Journal of International Affairs noted in the article *Delivering a Just and Equitable Energy Transition* that while the fight towards a more resilient and sustainable future is one all people share, different groups are starting from very different baselines⁵.

“In the case of developing countries, the obligation towards climate and energy action must not hamper action on their development priorities and obligations to their populace,” the journal stated.

“International donors and financiers should avoid generalised standards and policies that mask important discrepancies in needs, viable solutions, and cost.”

In some emerging market and developing economies (EMDE), such as in Latin America, those investments in recent years remained relatively flat.

- **The IEA** said the Latin America and the Caribbean (LAC) region (excluding Mexico) was likely to secure about US\$50 billion in clean energy investments last year, a 12% decline compared to 2022.
- **LAC represented only 2%** of private energy transition investments in 2022, even though its investments in clean energy have been at least 1.5 times larger than those in upstream oil and gas since 2020.
- **Estimates of annual investments** required for LAC’s energy transition vary from US\$20 billion (according to the United Nations Framework Convention on Climate Change) to US\$700 billion (according to McKinsey & Company).

McKinsey & Company has said all stakeholders were required to take decisive, coordinated action, and global coordination to ensure an orderly, equitable and affordable transition, while not compromising the need for energy security. It also suggested financial institutions would need to be instrumental in rethinking investment horizons and risk/return profiles, and quickly deploying capital toward clean-energy projects.

The actions of the Association of South East Asian Nations (ASEAN) are also critical to meeting global environmental targets.

The region is still heavily dependent on fossil fuels – comprising 83% of its energy mix, according to the IEA – but the 10 member states are committed to achieving net zero and will need international community support.

Southeast Asia accounts for 9% of the global population, 6% of global GDP, and 4% of world energy consumption, yet spending on clean energy represents only about 2% of the global total⁸.



The average energy investment over the last three years was US\$72 billion but would need to increase to over US\$130 billion by the decade's end to align with the Announced Pledges Scenario⁸.

During COP28 in Dubai last year, the UAE announced the launch of Alterra, a US\$30 billion investment fund for transformative climate partnerships with a focus on EMDEs.

Providing a major impetus to finance the energy transition, it seeks to bridge the climate financing gap by raising and investing a corpus of up to US\$250 billion of institutional and private capital by 2030. As of December, in collaboration with BlackRock, Brookfield and TPG as inaugural launch partners, Alterra had committed US\$6.5 billion to climate-dedicated funds for global investments, including in the Global South.

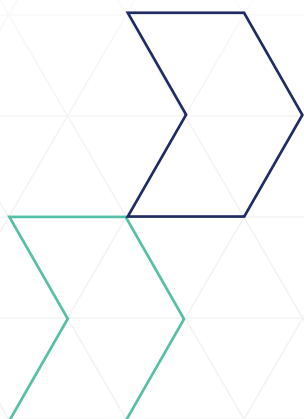
► Facing up to financial targets

Only when the requirements, concerns, and complexities of the diverse communities in need of clean energy and climate finance are understood can the true scale of the funding needed for the energy transition be calculated.

The International Renewable Energy Agency (IRENA) says investments of US\$5.7 trillion per year until 2030 will be required to achieve a scenario where the planet's average temperature does not exceed that of preindustrial times by 1.5°C degrees.

The World Energy Transitions Outlook estimates that US\$700 billion of yearly investments in fossil fuels should be redirected towards energy transition technologies.

Most additional capital is expected to come from the private sector, but a doubling of public funding will be required to catalyse private finance and create an enabling environment for a transition that yields optimal socio-economic gains.



► Funding the energy shift

Making capital available to fulfil growing clean energy demand in all regions of the world is central to reaching the Paris Agreement goals*.

Global support is needed for clean energy systems that will enable local economic development and contribute to the net-zero mission. That's where the international community, especially the private sector, plays a critical role.

Existing oil and gas operators can help by directing revenue to new energy initiatives inside countries where they operate, alongside current hydrocarbon activities. This can be seen in the repurposing of gas flaring emissions, which is happening successfully in Egypt.

UNCTAD said energy transition progress depends on a combination of financing sources and investments. To unlock more diverse sources of funding, governments can provide subsidies and tax incentives for energy-efficient and clean technologies.

* Join the **ADIPEC Finance & Investment Conference** session: *"What is the future of climate finance?"* to hear industry leaders discuss how they are navigating and mobilising the capital flows and investment needed to achieve a successful transition.

Existing and nascent mechanisms can play a role at various levels:

➤ **State:** The UK launched its five-year Strategic Innovation Fund to drive innovation to transform gas and electricity networks for a low-carbon future. It is assisting a varied portfolio of projects with a US\$576 million war chest via a model that can be replicated elsewhere.

Likewise, Australia's Renewable Energy Target initiative has been designed to reduce GHG emissions in the electricity sector and encourage generation from sustainable and renewable sources. It incentivises businesses and homes to install rooftop solar panels, solar water heaters, and small wind or hydro systems.

Green bonds are also growing in popularity and variety. They raise funds for existing and new projects that deliver environmental benefits, such as renewable energy and climate change adaptation. In 2023, US\$576 billion in green bonds were issued worldwide².



US\$576
billion

Value of green
bonds issued
worldwide in
2023²

➤ **Corporate:** Companies such as Shell Energy have devised a method by which business customers can make purchases linked to specific large-scale renewable energy projects within their portfolio. Launched in June 2024, Shell Energy introduced the Renewable Energy Contracting Options platform, allowing large commercial and industrial businesses to take charge of their renewable energy targets more easily.

➤ **Domestic:** Newer or adapted methods are helping to finance projects, including crowdfunding. For example, Dubai-based SunMoney Solar Group builds and acquires solar plants in Hungary by selling Smart Digital Business Network (SDBN) tokens, the world's first tokenised green-tech real-world asset. Start-ups can also seek a fiscal injection via platforms that allow retail investors to fund evolving businesses. Individuals can participate in the transition via projects they believe in, with amounts they feel comfortable pledging, for estimated returns.



➤ Grasping the opportunities of transition



The vast majority of finance can come from private financial institutions and markets if well-designed real economy policies are in place which create incentives to invest.”

Energy Transitions Commission

The Energy Transitions Commission (ETC) said two forms of financial flow are required for the energy transition: capital investment and concessional/grant payments.

Concessional finance is defined by the World Bank Group as below market rate finance provided by major financial institutions, such as development banks and multilateral funds, to developing countries to accelerate development objectives.

Capital investment is the process of investing money in long-term assets to create future benefits, such as increased revenue, reduced costs, or improved productivity.

The energy transition offers significant opportunities for investors to put their capital to work.

“The vast majority of finance can come from private financial institutions and markets if well-designed real economy policies are in place which create incentives to invest,” said the commission’s 2023 report *Financing The Transition*³.

Part of the investment needed will be offset by reduced funding of fossil fuels but the scale of capital mobilisation and reallocation required will not occur without strong real economy policies in all economies.



Some countries could face economic costs as they begin to cut emissions, such as those reliant on energy from coal. Phasing out production early while it remains competitive with renewables may prove unpopular in the short term.

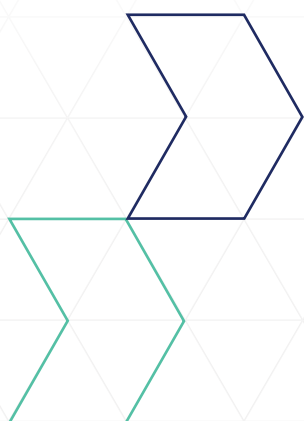
The ETC suggested that concessional/grant payments could be required to offset these costs in middle- and low-income countries and could amount to around US\$300 billion a year by 2030 if the world is to achieve 1.5°C objectives.

“This money could, in theory, come from corporates via voluntary carbon markets, philanthropy, and high-income countries,” added the commission.

Overall, it said a dramatic scale-up in capital investment was needed by 2030 globally, three times that of today’s levels.

That figure varies according to each nation, such as high-income economies, and China, where investment to build a net-zero economy will need to reach about double today’s levels by 2030.

The ETC indicated that investment in middle- and low-income countries represents “the biggest challenge”. It has estimated the need for a four-fold increase from today’s levels to around US\$900 billion a year by 2030. It cited the requirement for a significant rise in international financial flows, led by multilateral development banks (MDBs), together with changes in MDB strategy and approach, which can help mobilise greatly increased private investment.



▶ Getting there with cash and collaboration

The global energy transition is a complicated and evolving mission that requires plentiful – and potentially complex – funding policies and mechanisms.

The principle of leaving no one behind must translate into action by mobilising international public and private capital that flows into countries that need it most.

Like the transition pathway itself, securing finance for the energy transition across the globe requires creative problem-solving.

With dialogue, borderless discussions, and occasionally unconventional ideas – all backed by collaboration – fiscal solutions can be found and funding horizons reached so that everyone can move towards a mutually beneficial transition, no matter their location.

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