

IAP ENERGY DIALOGUE SERIES (FIRST EDITION)

WEBINAR REPORT

Africa's Energy Reality: Beyond the "Transition" Narrative



Integrated
Africa Power

IAP ENERGY DIALOGUE SERIES

THEME:

Africa's Energy Reality: Beyond the "Transition" Narrative

Reframing the idea of energy transition in Sub-Saharan Africa

PANELISTS



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MODERATOR

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CONVENER & MODERATOR:

Dr. Chigozie Nweke-Eze, Founder, Integrated Africa Power (IAP)

PANELISTS:

Dr. Chinnan Maclean-Dikwal – Vice Chair, African Energy Council (AEC)

Dr. Blaise Chiatula – Research, Technology & Innovation Division, Nigerian National Petroleum Company

Tony Tiyou – Founder, Renewables in Africa

Amos Wemanya - Senior Climate Advisor, Power Shift Africa

Jacqueline Rono - Senior Officer, Geothermal Development Company, Kenya

1. Overview of Africa's energy reality

The webinar set out to examine whether the term “energy transition” adequately reflects Africa’s energy reality. The discussion opened with an overview of the continent’s distinct starting point. Unlike many developed economies, Africa is not primarily replacing mature energy systems. Instead, many countries are still building new infrastructure to close persistent energy access gaps. At the same time, Africa has historically contributed no more than approximately 3 per cent of global greenhouse gas emissions, while more than 600 million people across the continent still lack access to electricity.

This creates a fundamental dilemma between addressing energy poverty and meeting global climate ambitions. Developed countries relied heavily on fossil fuels to industrialize and achieve their current levels of economic development. However, under the prevailing decarbonization and energy transition narrative, African countries are increasingly expected to leave their fossil fuel resources undeveloped.

Against this background, the webinar raised a central question: should net zero by 2050 be treated as a universal deadline, and **Should every country be expected to follow the same decarbonization pathway regardless of its level of development, energy access needs and starting point?**

To begin the conversation, the panelists were invited to respond to a reality-check question: **Does the current global energy transition framework adequately reflect Africa’s current reality?**

2. Key takeaways

- 1. An energy pathway must be judged by who benefits:** Moving from fossil fuels to renewables without changing ownership and value-extraction structures could reproduce the same unequal outcomes. Energy policy must connect to livelihoods, productive use and industrial development.
- 2. Finance, institutions and policy are binding constraints:** High capital costs, debt pressure, weak regulation, political instability and limited grid capacity can constrain energy choices before technology is considered. Public policy must be translated into workable rules, financing structures and credible institutions.
- 3. Africa is starting from a different place:** Africa's immediate challenge is expansion rather than replacement. The continent needs more energy to close access gaps and support industrial, commercial and digital growth. A framework designed around mature systems may therefore miss Africa's central development challenge.
- 4. There is no single pathway for every African country:** Energy pathways should reflect national resources, demand, technology, industrial policy and institutional capacity. The panel consistently rejected the idea that one technology or one timetable can be applied uniformly across the continent. Access, affordability, security and sustainability belong in the same conversation: none of these goals can be pursued in isolation
- 5. Access, affordability, security and sustainability belong in the same conversation:** None of these goals can be pursued in isolation
- 6. Technology and value-chain ownership are central to sovereignty:** Dependence on imported equipment and technology creates exposure to price volatility, supply disruption and geopolitical risk. Stronger local capability, processing, manufacturing and technology ownership are needed across both existing and emerging energy value chains.

7. Infrastructure choices made now must anticipate future demand:

Planning should look beyond today's access gap. Infrastructure should be scalable and flexible, combining capable grids with decentralized systems that remain close to users.

3. Panel Discussion

Does the current global transition framework adequately reflect Africa's reality? - *Chinan Dikwal*

Dr. Chinan approached the question through the lens of the energy trilemma, which requires countries to balance three competing priorities: energy access and affordability, energy security, and environmental sustainability. He explained that placing too much emphasis on energy security can undermine affordability, while prioritizing sustainability without sufficient regard for local conditions can restrict both access and affordability.

He further noted that these pressures do not affect all countries in the same way. While many Western countries are primarily concerned with energy security and sustainability, Africa's most urgent challenge remains energy access. In his view, the continent must first ensure that sufficient energy is available before focusing on its source or level of environmental impact.

He therefore argued that Africa's energy future should not be framed solely around renewable energy, despite the continent's considerable renewable resource potential. Reliable baseload power will remain essential, and natural gas is likely to play an important role in providing the consistent energy supply required to support economic growth and industrial development.

Does the current global transition framework adequately reflect Africa's reality? *Amos Wemanya*

He reframed the discussion around a more fundamental question: who owns the transition? In his view, Africa's central challenge is not a lack of energy resources, but whether those resources are accessible and used to meet the needs of African people. He questioned who currently benefits from the continent's energy endowments and whose interests the existing system is designed to serve.

He argued that Africa's historical energy model has largely supported external demand, with the continent functioning as a source of raw materials rather than as a beneficiary of the value created by them. For this reason, the debate should not focus only on environmental sustainability, but on whether Africa's energy system, whether based on fossil fuels or renewables, can improve the lives of its people. He noted that fossil fuels have not delivered broad-based development for Africans and warned that a transition to renewable energy could reproduce the same inequalities if ownership and benefit-sharing structures remain unchanged. In discussing energy security, he therefore emphasized the need to build an energy system that is designed around African interests and development priorities.

He also identified the high cost of capital as a major structural constraint. He observed that financing costs in Africa are significantly higher than in many other regions, making it more difficult to develop energy infrastructure at scale. He linked this challenge to the continent's ability to process critical minerals and capture greater value from its natural resources. In his view, stronger mining laws are essential to support local processing and prevent Africa from remaining merely an exporter of raw materials. However, even with the right legal frameworks in place, the continent must still address whether it has sufficient and reliable power to process these minerals domestically. This, he argued, is central to achieving energy sovereignty.

He concluded that energy access, the cost of capital and mining governance are closely interconnected and must be addressed together for Africa's transition to be meaningful. Otherwise, the continent risks moving from a fossil fuel system that has failed to benefit its people to a renewable energy system built on the same unequal foundations.

He left the audience with two critical questions: who owns Africa's current energy system, and who will own the energy system of the future?

Does the current global transition framework adequately reflect Africa's reality? – *Dr. Blaise Ebelechukwu Chiatula*

She began by pointing to her role as a renewable energy systems researcher at the Nigerian National Petroleum Company (NNPC), a national oil and gas company, as evidence that Africa is already responding to the global shift towards renewable energy.

However, she cautioned that discussions about energy transition often focus only on Africa's current energy deficit. In her view, the continent's future energy demand could be significantly greater than current projections, particularly if African countries industrialize at scale. The rapid growth of the digital economy will further increase demand, as data centres and other digital infrastructure require substantial and continuous power. She argued that oil and gas will therefore remain strategically important, even as renewable energy becomes a larger part of the energy mix. However, the appropriate mix will differ across African countries and should be shaped by national circumstances. Key considerations include the resources available within each country, whether the necessary technologies exist to harness those resources, whether those technologies are reliable, and whether supportive industrial policies are in place.

Drawing lessons from Nigeria's oil and gas experience, she noted that although petroleum resources helped establish the country's position in the global energy market, Nigeria has not developed sufficient domestic capacity to extract and refine enough petroleum products to meet its own demand. The country also continues to rely on imported equipment across the oil and gas value chain, from extraction and refining to transportation. This dependence leaves the sector exposed to external supply disruptions and price volatility.

She concluded that Africa's energy transition will require a diverse energy mix combined with stronger domestic technological and industrial capacity. As more countries seek to localize even renewable energy supply chains,

including solar manufacturing, technology ownership and local production will become increasingly important to achieving long-term energy security.

Does the current global transition framework adequately reflect Africa's reality? – *Jacqueline Rono*

Building on the earlier contributions, she began by clarifying the meaning of energy affordability. In her view, affordability is not determined by the price of electricity alone, but by the purchasing power of the people expected to pay for it. Electricity that may be considered inexpensive in one country could remain unaffordable in another where incomes are significantly lower. Energy access must therefore be assessed in relation to people's livelihoods and whether household incomes can reasonably support the cost of power.

She also challenged the assumption that the provision of electricity must always precede economic development. Drawing on her experience, she argued that energy is primarily an enabler of development rather than its sole driver. Economic activity creates demand for power, raises living standards and increases people's capacity to make productive use of electricity and pay for it sustainably.

She further emphasized the importance of political stability, which she described as a key foundation for economic development. To ensure that energy systems serve the interests of African people, public policies must be translated into clear and enforceable regulations. These regulations should provide the institutional structures needed to attract, direct and manage financing effectively.

Does the current global transition framework adequately reflect Africa's reality? – *Tony Tiyau*

He challenged the view that Africa's energy transition should prioritize access over energy security and sustainability. Referring to the energy trilemma, he argued that none of the three objectives should be treated as more important than the others, as they are closely interconnected.

He emphasized that sustainability must be considered from the outset when designing new energy infrastructure. Retrofitting existing gas or hydropower plants to meet future environmental standards can be significantly more expensive than incorporating sustainable technologies at the design stage. Failing to plan could therefore leave African countries facing substantial costs to rebuild or upgrade their energy systems in the future.

In his view, Africa should take advantage of technologies that are already available and increasingly affordable, including solar and wind, when developing new infrastructure. This would help countries avoid costly retrofits while building energy systems capable of supporting long-term industrialization.

4. Follow-up questions

Following the first round of discussions, the panelists were invited to respond to a series of follow-up questions arising from the issues they had raised. The conversation then shifted to the political economy of Africa's energy transition, with particular attention to a central question: ***Who owns the technologies that will shape the continent's future energy systems?***

Dr. Chinan: He clarified misconceptions from his earlier comment. He noted that solar energy is Africa's most widely available renewable resource, with greater geographic reach than hydropower or geothermal energy. However, he argued that the continent's energy future should not depend on a single source. Instead, Africa will require a diverse and flexible energy mix that brings together all available resources.

He distinguished between greenfield and brownfield development. Greenfield projects offer an opportunity to introduce forward-looking frameworks and technologies from the outset, making it easier to future-proof infrastructure. By contrast, upgrading existing brownfield infrastructure can be complex and expensive. Nevertheless, he stressed that Africa's immediate challenge is even more fundamental: the continent still lacks sufficient energy capacity and must begin by addressing that deficit.

He observed that countries generally develop their energy systems according to their comparative advantages. Referring to China's continued expansion of coal-fired generation, he argued that each country makes use of the resources available to it in pursuit of its development objectives. African countries should similarly identify and build on their own competitive strengths. In his view, solar intermittency is becoming less of a constraint when solar power is combined with battery energy storage systems. Africa's principal limitation is therefore not necessarily a lack of technology, particularly as technological solutions continue to advance rapidly. Rather, the challenge lies in having the ambition and imagination to design and build energy systems suited to the continent's circumstances.

Drawing a parallel with the transformation of Africa's banking sector, he noted that decentralized models have often delivered effective solutions on the continent. He suggested that the future African energy system may follow a similar path, moving away from an exclusive dependence on large, centralized networks towards smaller, more flexible and highly decentralized systems located closer to the communities they serve.

Amos Wemanya: He emphasized that Africa possesses significant natural and energy resources, but the priority must be to convert these endowments into productive assets that can support the continent's prosperity. He questioned whether the global net-zero framework and the 2050 deadline should apply uniformly to every continent. In his view, countries and regions have different starting points, development needs and energy realities. While the global framework remains important for holding the countries most responsible for the climate crisis accountable, Africa's transition must reflect its own circumstances and priorities.

He argued that African countries should be supported to leapfrog systems and approaches that have historically failed the continent. However, this process must be grounded in climate justice. Those who contributed most to the climate crisis should bear a greater share of the cost of the transition. Achieving this will require effective global mechanisms that address existing inequalities, including fairer international tax and financial arrangements. He further explained that Africa's resources have often failed to deliver meaningful benefits to its people because governments are compelled to export raw materials to earn the foreign currency needed to service external

debt. This creates a cycle in which debt repayments place pressure on national currencies and reinforce dependence on what he described as an unequal global financial system. He therefore called for the restructuring of international financial architecture.

He also highlighted the need for stronger continental coordination. African governments should develop shared policies and strategies that increase their collective bargaining power and protect the continent's sovereignty, drawing on initiatives such as the African Continental Free Trade Area. He concluded that Africa's energy transition cannot be separated from its wider social and political economy. The continent must reform the financial, economic and political systems that shape its development and build institutions that can advance African interests.

Jacqueline Rono: She noted that competing interests are an unavoidable feature of politics in every country. The key difference lies in how governments manage and balance those interests, and in the strength of the institutions they establish to prevent political considerations from undermining national development.

She also highlighted the importance of a strong connection between policymaking and technical implementation. In her view, Africa needs robust power systems supported by a diverse energy mix capable of meeting the varied demands of industry. Some industries consume more power during the day, others at night, while many require a continuous and reliable supply around the clock.

She therefore called for a more strategic approach to power planning. Generation capacity should be developed alongside a competent and resilient grid that can absorb and distribute electricity efficiently. This plan must also be carried out in a cost-effective manner to ensure that the resulting energy system is both reliable and financially sustainable.

Dr. Blaise Chiatula: She argued that technology ownership is not a secondary consideration, but a strategic requirement for Africa's energy transition. Drawing on China's experience, she stressed that African countries must build the capacity to develop, manufacture and control the technologies

that will underpin their future energy systems.

Without such ownership, the continent risks replacing one form of external dependence with another. Continued reliance on imported technologies would leave African countries exposed to geopolitical tensions, supply-chain disruptions and external pricing pressures. In her assessment, this would reproduce many of the vulnerabilities already associated with fossil fuel dependence rather than deliver genuine energy sovereignty.

Tony Tiyou: He noted that oil and gas remain critical to sectors such as petrochemicals, fertilizer production and other heavy, hard-to-abate industries. The central challenge, therefore, is how Africa can develop energy systems capable of meeting these needs at scale while simultaneously advancing its broader energy transition.

He stressed that the role of fossil fuels extends beyond electricity generation. Recent disruptions associated with the Strait of Hormuz illustrate how dependence on a narrow range of energy sources or supply routes can create wider economic and geopolitical vulnerabilities. To avoid reproducing these risks in the future, African countries will need resilient energy systems built around a diverse mix of resources.

In his view, each country should assess the resources available to it and determine how they can be used responsibly, while avoiding excessive dependence on any single source. He argued that this is achievable and pointed to the experiences of countries such as India, China and North Korea, which have pursued energy strategies shaped by their national circumstances and development priorities. He cited China's commitment to reach peak emissions by 2030 as an example of a country setting its own target and designing an energy system around that objective.

Africa, he concluded, must similarly define commitments that reflect its realities and build energy systems that can deliver those commitments while supporting the continent's development needs.

5. Closing Reflections

The webinar's central message was that Africa's energy future cannot be reduced to a binary choice between fossil fuels and renewable energy. The more fundamental task is to build an energy system that is accessible, affordable, secure, sustainable and capable of supporting African development.

For the panelists, this requires more than adding new generation capacity. It requires ownership, local capability, a diverse energy mix, credible institutions, strategic infrastructure, fair finance and policies that connect energy to livelihoods and industrial growth. A meaningful transition will therefore be defined not only by what powers Africa, but by who benefits from the system and whether it strengthens the continent's sovereignty and prosperity.

6. Acknowledgement

IAP extends heartfelt appreciation to all speakers, participants, and partners for their valuable contributions toward shaping Africa's sustainable energy future.



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