



Africa  
Centre for  
Energy Policy

# FEE



Future of Energy **Conference**

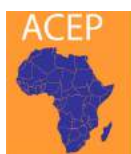
**26th-28th August, 2024**

**8:30am Each Day**

## **Theme**

**Harnessing Africa's Resource Wealth:  
Fueling Innovation for Equitable  
Energy Access**

**Labadi Beach Hotel,  
Accra, Ghana**



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# Background

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The Energy Transition is vital for meeting the Paris Agreement's goal of limiting global temperature rise to below 1.5°C. Over 130 countries have since committed to achieving net-zero emissions by 2050<sup>1</sup>, with the European Union targeting climate neutrality by the same year. Additionally, more than 3,000 companies and financial institutions, including major oil firms such as BP, Shell, Chevron, Total, Eni, and Exxon, are committed to investing in renewables to diversify their portfolios and stay future-ready. National Oil Companies (NOCs) are also realigning their strategies, with PetroChina and EcoPetrol aiming for near-zero emissions by 2050, alongside African NOCs like NNPC, Sonatrach, and SNPC, which are embracing decarbonization through initiatives like renewable integration and carbon capture and storage<sup>2</sup>. Accordingly, all 54 African countries have ratified the Paris Agreement.

As nations grapple with the imperative of mitigating climate change and achieving the ambitious targets set forth by the Paris Agreement, Africa stands at a pivotal crossroads. Blessed with abundant natural resources, the continent holds the potential to shape the trajectory of the global energy landscape while confronting a myriad of challenges and seizing unprecedented opportunities. The International Energy Agency (IEA) predicts that a rapid energy transition in scenarios aligned with the Paris Agreement is projected to increase demand for critical minerals by almost fourfold by 2040. This exponential growth in demand for critical minerals is central to Africa's energy narrative, a cornerstone of renewable energy technologies. Accordingly, this ushers in a new geopolitical competition for securing critical mineral supply chains among global economies. For instance, the EU has recently enacted the Critical Raw Materials Act. The act thus aims to ensure secured and resilient supply chains, mitigate supply risks, and promote environmental protection and circularity in the context of the energy transition<sup>3</sup>. With Africa hosting 30% of proven global mineral reserves<sup>4</sup>, the continent is at the epicentre of this unfolding geopolitical contest, tasked with harnessing its mineral wealth to

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1 United Nations. (2022). For a livable climate: Net-zero commitments must be backed by credible action. Retrieved from: <https://www.un.org/en/climatechange/net-zero-coalition>

2 Africa Energy Chamber (2022). The State of African Energy. Retrieved from: [7 United Nations Environment Programme / Climate and Clean Air Coalition. \(2022\). Global Methane Assessment: 2030 Baseline Report Summary for Policymakers. Nairobi. Retrieved from https://wedocs.unep.org/bitstream/handle/20.500.11822/41108/methane\\_2030\\_SPM.pdf?sequence=1&isAllowed=y](https://www.aec.org/~/media/2022/04/29/Global_Methane_Assessment_2030_Baseline_Report_Summary_for_Policymakers.pdf)

3 EU (2023). Critical Raw Materials: ensuring secure and sustainable supply chains for EU's green and digital future. Retrieved from: [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_23\\_1661](https://ec.europa.eu/commission/presscorner/detail/en/IP_23_1661)

4 IMF (2024). Harnessing Sub-Saharan Africa's Critical Mineral Wealth. Retrieved from: <https://www.imf.org/en/News/Articles/2024/04/29/cf-harnessing-sub-saharan-africas-critical-mineral-wealth#:~:text=With%20sub%2DSaharan%20Africa%20estimated,of%20global%20critical%20mineral%20production>

drive sustainable development while ensuring equitable distribution and environmental stewardship.

Amidst these global imperatives, the pursuit of sustainable energy pathways is fraught with complexities and trade-offs. Despite significant progress in expanding energy access, about 600 million people in Sub-Saharan Africa still lack access to reliable electricity, and at least 1 billion people are reliant on traditional wood-based fuels to meet their domestic heating and cooking needs, perpetuating cycles of poverty and inequality. With the continent hosting nearly 9% of the world's gas reserves and about 6% of global natural gas production<sup>5</sup>, amidst a long-term outlook of declining usage, perhaps African countries can optimize their resources to close the energy access gap. However, there are concerns about how fossil-based development can be pursued in accordance with the continent's commitment to the Paris Agreement and the imperative of climate action. Notwithstanding this, Africa's endowment of vast renewable energy resources such as solar, wind, hydro, and geothermal promises a future of sustainable and equitable energy access with advancements in technological innovations.

Against this backdrop, the discourse on a just transition the African way assumes paramount importance, ensuring that no one is left behind in the shift towards cleaner energy sources. The potential disruption to livelihoods in traditional energy sectors, including those in the local biomass energy value chain, underscores the need for equitable and inclusive transition strategies that prioritize the welfare of vulnerable communities and individuals. For instance, an estimated 120,000 jobs are at risk of being lost in South Africa's coal heartland of Mpumalanga by 2030 due to the energy transition<sup>6</sup>. Similarly, the IEA projects that majority of petrostates could suffer about 50 percent revenue losses.

Despite the economic risks, the energy transition is projected to provide enormous economic opportunities for labor, businesses, and the government. The expansion of renewable energy sectors and energy-efficient technologies and infrastructure projects offers significant employment and entrepreneurial prospects. For instance, the development of smart grids, electric mobility technologies and related infrastructure, and energy storage systems will require a skilled workforce and foster new business opportunities in these emerging markets. Considering that nearly one in three young people is expected to reside in Africa by 2050, harnessing the potential of Africa's youth, women, and businesses is essential for driving innovation and building

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5 Climate Action Tracker (2022). Natural gas in Africa: Why fossil fuels cannot sustainably meet the continent's growing energy demand. Retrieved from: <https://climateactiontracker.org/publications/natural-gas-in-africa-why-fossil-fuels-cannot-sustainably-meet-the-continents-growing-energy-demand/>

6 Business Insider (2023). Over 120,000 jobs at risk in South Africa's coal heartland transition. Retrieved from: <https://africa.businessinsider.com/local/markets/over-120000-jobs-at-risk-in-south-africas-coal-heartland-transition/dhfl8ph>

resilience in the face of evolving energy landscapes. With the operationalization of the Africa Continental Free Trade Agreement, the energy transition can be a panacea to Africa's industrialization agenda amidst effective intraregional trade, alleviate energy poverty, and drive economic transformation. Optimizing these, however, requires intentionality of African governments and regional institutions to proactively curate a thriving environment through pragmatic policies and regulations.

In this nuanced context, the Africa Centre for Energy Policy (ACEP), in collaboration with its partners, organizes the Future of Energy Conference 2024 to critically examine alternative strategic approaches Africa can adopt to harness the inherent opportunities of energy transition on the thrust of its existing resources.

## Objective

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The main objective of the Future of Energy Conference is to examine Africa's energy needs and the range of resources and technologies that can sustainably reduce energy poverty and advance industrial growth. The Conference presents a timely platform for stakeholders to converge, dialogue, and chart a course towards an inclusive and sustainable energy future for Africa. By fostering collaboration, innovation, and knowledge exchange, the Conference aims to catalyze actionable solutions and forge cross-border partnerships that propel Africa towards the future we want.

## Expected Outcome

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1. Enhanced understanding of the challenges and opportunities of Africa's energy transition.
2. Identification of actionable strategies and policy recommendations to accelerate the adoption of sustainable energy solutions.
3. Strengthened partnerships and collaborations among stakeholders to drive collective action towards energy sustainability and inclusive economic transformation.
4. Contribution to the global discourse on energy transition best practices and lessons learned from Africa's experience.



# Thematic Focus



The thematic focus areas of the Future of Energy Conference include the following:

## **1. Climate Finance, Investment, and Infrastructure Development**

Africa's drive towards universal energy access hinges largely on financing and its ability to mobilize resources for energy infrastructure development, innovations, and energy transition. This theme will explore avenues for mobilizing financial resources to support Africa's energy transition and innovations. Discussions will revolve around innovative financing mechanisms and means to address unfair roadblocks in the global financial architecture. Additionally, this theme will delve into the challenges and opportunities of the carbon market, advocating for a more harmonized strategic approach that African governments and businesses could adopt to navigate these complexities.

## **2. Equitable and Just Energy Transition**

This theme examines the strategies for contextualizing energy transition in Africa to ensure no one is left behind in transitioning to cleaner energy sources. That is, providing a fair transition for local communities and labour dependent on woodfuel and fossil fuel industry for livelihoods, exploring cheaper energy alternatives for clean cooking, and implementing measures to support the economic diversification of regions dependent on oil and gas revenues. The theme also explores the economic risks and opportunities of the energy transition in oil-producing African countries and the requisite policy and regulatory frameworks to foster an enabling environment for innovation, investment, and market growth in the energy sector to achieve equitable energy access and economic transformation.

## **3. The Future of Oil and Gas in Africa's Economic Development: When Does the Clock Stop?**

This theme will involve the role of oil and gas in addressing energy poverty, Africa's economic trajectory, and the implications for its future. Further, discussions will critically examine the sustainability of Africa's reliance on oil and gas amid global energy transitions and environmental concerns, considering factors such as climate change, technological advancements, and shifting market dynamics.

#### **4. Innovations, Research, and Development in Africa's Energy Systems**

In addition to addressing technological gaps in renewable energy, this theme will consider innovations within the broader energy spectrum. Discussions will explore cutting-edge technologies and innovations that are revolutionizing the energy sector in Africa, from renewable energy sources to smart grid systems, e-mobility, and energy storage solutions. Topics will also include advancements in clean technologies for sustainable oil and gas extraction, such as carbon capture and storage (CCS), as well as research into renewable-based alternatives to traditional fossil fuels.

#### **5. NetZero Workforce – the Role of Youth, Women, and Persons With Disability**

This theme will focus on measures to develop a skilled workforce capable of navigating the complexities of the energy transition. Harnessing the potential of Africa's growing youthful population is vital for driving innovation and sustainable development. Empowering young entrepreneurs to lead in renewable energy initiatives and innovations can catalyze economic growth and foster resilience. Similarly, in line with Goal 8 of the UN Sustainable Development Goal (SDGs), this theme also explores how women and persons with disabilities could be integrated into the value chain to enhance access to diverse economic opportunities inherent in Africa's energy future and promote equitable access to decent jobs.

#### **6. From Minerals to Clean Energy: Building an Integrated Regional Value Chain of Energy Transition Technologies**

This theme explores how Africa can maximize its potential as a critical player in the energy transition through sustainable mineral development and intra-regional collaborations among governments, businesses, and individuals to develop innovative solutions. The theme also examines the potential and opportunities AfCFTA offers to build an integrated regional energy transition technologies value chain through cross-border partnerships in Africa. Other areas for deliberation include promoting transparency, accountability, institutional and human resource development, illicit financial flows, and policy coherence across the region to ensure African countries optimize gains along the critical mineral to transition technology value chain for both equitable energy access and economic prosperity of the African people.

## **7. Management of Methane Emissions in Africa**

Although a short-lived climate pollutant with shorter atmospheric lifespan, methane poses more adverse environmental impact. The IPCC reports that average atmospheric methane growth rates have increased more than ten-fold in the past two decades. This could worsen global climate change in the next decade and undermine the achievements of targets under the Paris Agreement. A baseline assessment reveals a dearth of efforts and knowledge in methane management in Africa. This theme explores the various strategic alternatives African governments and businesses could adopt to curtail and manage methane emissions for climate action and economic and health gains. The theme also seeks to bridge the knowledge gap and inspire delegates to strengthen the demand for effective methane management.

# **Innovation Challenge**

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In line with its central theme, the Future of Energy Conference 2024 creates the platform to recognize and inspire individuals, businesses and institutions at the Innovative Challenge for Energy Solutions, a platform dedicated to fostering cutting-edge innovations in the energy sector. This challenge invites entrepreneurs, researchers, and industry professionals to present their groundbreaking ideas and technologies that address Africa's unique energy challenges. Innovations vary from various categories, including renewable energy technologies, energy efficiency, smart grid solutions, and sustainable energy practices. The goal is to identify and support solutions that enhance energy access, reliability, and sustainability across the continent. Finalists will have the opportunity to showcase their innovations to a panel of expert judges and an audience of key stakeholders, including policymakers, investors, and industry leaders over the 3-day period of the Conference. Winners will receive recognition, mentorship, and potential funding to bring their solutions to market on the final day of the Conference. Join us at the ACEP Future of Energy Conference 2024 and be part of the movement driving Africa's energy transformation through innovation and collaboration.



# Structure

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The 2024 Future of Energy Conference (FEC) is structured around three broad categories: plenary sessions, side events, and exhibitions over three days. The plenary sessions are interspersed with keynote speeches, paper presentations, expert submissions, and panel sessions on issues focused on the theme. Further, there are concurrent side events after the opening plenary by partners and other like-minded institutions across various sectors, including governments, the private sector, academia, CSOs, multilateral institutions, etc. Topical discussions at these events would stem from the varying sub-themes of the Conference that contribute to achieving the overall objective. Each day will be crowned with the innovation challenge, where contestants pitch their innovative energy solutions. The winner(s) will be announced at the Conference's closing ceremony on Day 3. The Conference also provides a platform for the exhibitions of innovative energy solutions and products from startups, small and medium-scale businesses, academia, and other Corporations across the value chain.

# Thank You!



Future of Energy Conference

2024

