

# FEE



Future of Energy Conference

## 2024 Report

### Theme

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



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# Introduction

The Future of Energy Conference (FEC) is an annual flagship event hosted by the [Africa Centre for Energy Policy \(ACEP\)](#). It is a platform for stakeholders across Africa to converge, dialogue, and pave the way for an inclusive and sustainable energy future for the continent. The Conference critically examines strategies Africa can adopt to harness the inherent opportunities of energy transition and its natural resources to alleviate the continent's energy poverty and promote economic transformation.

The 2024 edition was held from 26th to 28th August 2024 under the theme ***Harnessing Africa's Resource Wealth: Fuelling Innovation for Equitable Energy Access***. It was co-convened with Enzi Ijaye African Initiative and supported by key partners, namely Ford Foundation, Oxfam, Global Methane Hub, Energy Transition Fund, Global Witness, Natural Resource Governance Institute and Tax Justice Network Africa. The Conference culminated in the presentation of the [Action Points](#), which outline clear and practical policy recommendations and strategies to guide stakeholders in their respective roles for advancing sustainable and equitable energy solutions across Africa.



Fostering collaboration, innovation, and knowledge exchange to shape Africa's energy future

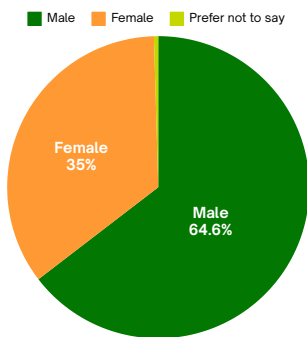


# Attendance

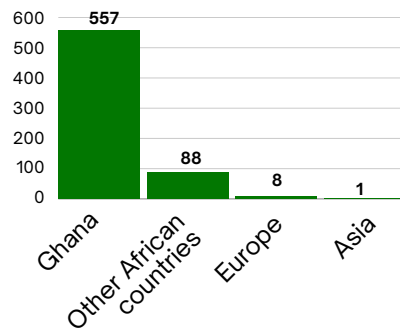
This year's Conference attracted diverse attendees from Africa and beyond, with 655 unique in-person participants. These attendees represented government institutions, civil society, industry, development partners, academia, and students. Additionally, the Conference had 363 unique online participants from various regions worldwide. A breakdown of the participation is provided in the table below:

**Figure 1: Characteristics of participants at FEC 2024**

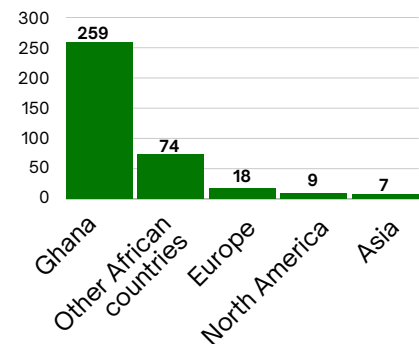
**Gender breakdown of in-person attendees**



**Country/regional breakdown of in-person attendees**



**Country/regional breakdown of virtual (Zoom) attendees**



# Promoting Diversity, Equity, and Inclusion in the Energy and Extractive Sector

The 2024 Future of Energy Conference made significant strides in promoting diversity, equity, and inclusion within the energy and extractive sectors through logistical support, diverse panels, and targeted events. This is geared towards promoting an inclusive energy and extractive sectors for a more sustainable and equitable development. Some deliberate initiatives include:

## **Ensuring accessibility for Persons with Disabilities (PWDs)**

Logistics support was given to PWDs to aid their active participation in the conference, contributing to discussions on how energy policies and practices can be more inclusive. The aim was to remove socioeconomic barriers that often prevent marginalized groups from contributing to critical conversations.

## **Elevating indigenous voices through community participation**

The conference also prioritized the involvement of local communities, recognizing their critical role in the energy transition. For instance, a chief (traditional authority) served as a speaker at a side event symbolizing the importance of integrating indigenous perspectives into energy policy discussions.

## **Marginalized Groups in the Energy Future**

One key highlight of the 2024 FEC is promoting the involvement of young people in the emerging transition economy. One side event and the innovation challenge were dedicated to emphasizing the importance of creating equitable opportunities in the energy sector to ensure that Africa's youth population are not left behind in the global push towards net-zero emissions. These initiatives exposed young people to the opportunities and requisite skills to thrive in the rapidly evolving energy space.

## **Promoting Women's Participation and Women Economic Empowerment in the Energy and Extractive sectors**

The conference promoted women's leadership in the energy and extractive sectors with 50% female panelists, it aimed to inspire more women and highlight opportunities to augment their contributions. Two side events focused on women's inclusion in the energy future, providing clean cooking solutions and supporting women SMEs.

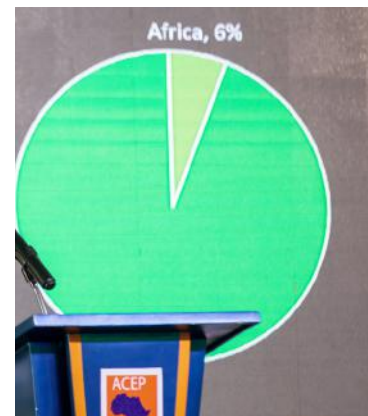
# Event Structure

Over the three days, the Conference featured four plenary sessions, interspersed with keynote speeches and presentations addressing issues related to the theme. This year's Conference also featured new formats such as side events, an exhibition, and an Innovation Challenge.

The side events facilitated discussions among diverse stakeholders—including CSOs, government agencies, the private sector, and academia—on the various issues around the theme of the Conference. The exhibition showcased African innovations in sustainable energy and mobility. The Innovation Challenge, on the other hand, featured young Africans pitching their sustainable energy ideas. These initiatives aimed to stimulate collaboration, innovation, and knowledge exchange, leading to actionable solutions and partnerships that advance Africa's progress.



- 4 plenary sessions
- Keynote speeches & presentations
- Side events with diverse stakeholders
- Exhibition of African innovations
- Innovation Challenge featuring young African innovators



# Opening Remarks and Guest Speakers' Addresses

Each day of the Conference began with addresses from guest speakers. The Keynote Address was delivered by H.E. Nasheed, the Former President of Maldives and the Chairperson of the Climate Vulnerability Forum (CVF). This section of the report presents a summary of the guest speeches that were delivered at the Conference.



# Opening Remarks by Mr. Benjamin Boakye (Executive Director, ACEP)







In the 21st century, we're forced to confront the tragedy of young people who can only study during the day when the sun is out and at night when the dim light of the moon graces them. For these children, education, often touted as the key to breaking the cycle of poverty is a struggle against darkness; their potential is stifled, their dreams limited by the absence of something as basic as electricity.

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Mr. Boakye welcomed all the participants to the Conference. He highlighted that energy poverty is a pressing and unjust reality for many across Africa, with about 600 million people lacking access to electricity. This deprivation not only hinders education and industrialization potential for the region but also perpetuates inequality and marginalizes a significant portion of the population. The issue is compounded by the unreliability of electricity in many regions, where frequent load shedding further stifles economic and social development.

He noted that the energy transition presents a unique opportunity for Africa to bridge this energy poverty gap. Therefore, Africa must navigate the energy transition with a balance of responsibility and resilience. Additionally, he emphasized that the continent is rich in critical minerals that hold the potential to drive sustainable development and economic participation in the renewable energy space. Consequently, aligning resource revenues with climate goals is essential for expanding energy access and meeting the Paris Agreement commitments. However, he cautioned that the transition comes with challenges, such as high energy costs and the risk of stranded assets. Therefore, these challenges must be weighed against the opportunities for innovation and development.

In his concluding remarks, Mr. Boakye reiterated the Conference's focus on bridging Africa's energy poverty gap. To do this, he stated that Africa's transition must focus on economic participation, meeting community needs, and sustainable development. Therefore, he urged all stakeholders to work together to develop community-friendly technologies, align resources with economic growth and investment and ensure that everyone benefits from the transition.



# Keynote Address by H.E Mohamed Nasheed (Secretary-General of the Climate Vulnerable Forum)





Our climate is changing. Our climate has already undeniably changed. Droughts are longer, winds stronger, seas rougher, and rainfall more intense. Denying this reality is madness; the signs are very clear. These changes are a direct result of human actions on our planet.

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His Excellency Mohammed Nasheed, former President of the Maldives, delivered the keynote address at the Conference. He noted that although Africa contributes minimally to global greenhouse gas emissions, it disproportionately suffers from the impacts of climate change, experiencing stronger winds, unpredictable rainfall, and other extreme weather events.

H.E. Nasheed emphasized the urgent need to reduce global emissions but warned against hindering the progress of developing nations. He argued that Africa should pursue a low-carbon development path that avoids outdated technologies and ensures equitable participation in the global energy transition. He highlighted the work of the Climate Vulnerable Forum (CVF), which is driving the development of country-level Climate Prosperity Plans. Countries like Bangladesh, Sri Lanka, and Ghana have made substantial strides in securing financing and partnerships to implement these plans.

H.E. Nasheed also pointed out the need for Africa to transition to climate-friendly and efficient alternatives, such as electric vehicles. He emphasized the continent's substantial reserves of critical minerals essential for clean energy technologies, urging that domestic value addition will help to avoid repeating the past mistakes of exporting raw materials like gold. He recommended a continent-wide ban on exporting raw critical minerals, similar to Indonesia's ban on nickel exports, to promote internal development and full participation in the green technology revolution.

In his concluding remarks, H.E. Nasheed emphasized that Africa must seize the opportunity to add value to its resources and build a strong mineral base to support the global energy transition, ensuring the continent shares in the prosperity the transition promises.

# Address by Hon. Herbert Krapa (Minister of State at the Ministry of Energy, Ghana)





With technology cost for renewables decreasing and global investment shifting, we must join hands and forces to use technology and our natural resources for change. We have an ethical responsibility to transition to cleaner energy sources for our own sake and that of our planet.

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Hon. Herbert Krapa highlighted that the concerns of climate action through energy transition have prompted Africa to reduce its oil and gas production despite contributing less than 3% of global carbon emissions. This situation presents significant challenges for a continent already grappling with growing energy demands and the need for economic development. Additionally, the reliance on traditional fuels such as biomass underscores the urgent need for technological advancements in cleaner, affordable and more efficient energy sources.

In the case of Ghana, Hon Krapa indicated the country's significant progress toward expanding its renewable energy capacity by 2030 through initiatives such as conducting grid impact assessments and investment attraction. Additionally, Ghana is pursuing a nuclear power program to diversify its energy mix. He noted that these initiatives are in response to the rapid evolution of the global energy landscape. International agencies such as the International Energy Agency (IEA) have predicted the development of low-carbon technologies to replace existing ones with high carbon emissions potentials. Further, many countries have pledged to phase out fossil fuel production. These shifts have profound implications for African policymakers, who must navigate this evolving energy environment.

The energy minister noted that Africa must strategically utilize its oil and gas deposits for economic transformation while investing in sustainable alternatives. However, achieving this balance will require collaboration among governments, businesses, and communities and a clear focus on long-term sustainability goals.

# Address by Dr. Ifeoma Charles Monwuba (Director, UNOPS Ghana Multi-Country Office)





Africa possesses vast potential for renewable energy. Our solar capacity is about 11 terawatts, hydro 350 gigawatts, wind 110 gigawatts, and geothermal 15 gigawatts. The resources abound on our continent, yet our journey toward universal energy access remains complex and multifaceted. One of the key challenges is the infrastructure gap. At UNOPS, we believe that 90% of the SDGs can be achieved if we have the right infrastructure in place.

Dr. Monwuba emphasized that despite Africa's rich energy potential, it has not received the urgent attention it requires. This crisis is particularly severe in Sub-Saharan Africa, which hosts about 98% of the 600 million people in energy poverty. Consequently, achieving universal access to electricity and clean cooking remains a distant goal.

She noted that infrastructure development is essential for Africa to bridge the energy access gap and broadly achieve its SDGs. However, high debt-to-GDP ratios, regulatory and policy barriers, and poor intersectoral coordination make financing energy investments prohibitively expensive or unattainable. Additionally, the continent's renewable energy sector has been significantly underfunded. Between 2010 and 2020, Africa received only 2.4% of global renewable energy investment. Despite funding availability, there is a significant shortage of bankable projects, which continues to be a major obstacle to progress.

Dr. Monwuba further provided insights on the role of UNOPS in assisting the private sector to develop bankable projects for renewable energy initiatives. For example, a comprehensive electricity demand assessment in Sierra Leone in 2016 helped implement cost-effective smallholder solar projects and mini-grids in rural communities. She reiterated the commitment of UNOPS to support capacity development across the energy value chain in other countries. In her concluding remarks, Dr. Monwuba urged the private sector and donor organizations to unite to chart a sustainable energy path for Africa.



# Address by Dr. Mohammed Amin Adam (Minister of Finance, Ghana)







We must engage on all fronts for Africa to address its existential challenges and ensure a progressive transition that delivers growth while safeguarding our future. We must work alongside civil society and development partners to implement comprehensive, country-led, sustainable growth strategies. Additionally, we must create the fiscal space and attract the necessary investment to undertake large-scale development projects.

Dr. Mohammed Amin Adam admonished civil society organizations to leverage their convening power to play a crucial role in shaping policy and driving sustainable development on the continent. This role is particularly significant given Africa's dual challenges of climate change and energy poverty. Addressing the energy access gap demands requires over \$25 billion in financial investment by 2030, necessitating a multi-stakeholder approach that includes collaboration between civil society, the private sector, and state agencies. He also noted that governments must have the political will to create a conducive environment to attract private-sector investment.

Dr. Adam highlighted the inadequacy of current international financing mechanisms for Africa's energy access challenges, adding that a small fraction reaches the continent. Higher borrowing costs, unfair economic metrics, and inadequate credit ratings hinder private sector investment and international support for Africa's energy development. Dr Adam emphasized the need for governments to improve resource mobilization efforts to increase investments and accelerate energy access. This approach must involve resource mobilization schemes, such as broadening the tax base, reducing illicit financial flows, and innovative financing mechanisms like carbon markets and debt-for-climate swaps.



# Address by Dr. Marit Kitaw (Interim Director, AMDC)



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To bridge the energy poverty gap, we must embrace innovation. Innovation in technology, policy, and financing will be the catalyst that drives us toward equitable energy access. It is not enough to simply extract and export raw materials; we must add value, develop local industries, and build a resilient energy system that meets the needs of our people.

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Dr. Marit Kitaw emphasized Africa's pivotal role in the energy transition, highlighting the continent's dominance in producing critical minerals like cobalt, lithium, etc. She noted that Africa's substantial mineral deposits offer a unique opportunity to lead the global shift towards cleaner energy sources.

She acknowledged the challenges of electricity access in Africa but pointed to a unique opportunity for the continent to lead the global energy transition to meet its own and other regions' resource needs. The African Mining Vision also underscores the importance of adding value to raw materials and positions minerals as drivers of sustainable growth.

Dr. Kitaw stressed that Africa cannot remain passive while the Western world advances its clean energy agenda. She called for innovative solutions, policy implementation, and strategic partnerships between African governments and local communities. While energy access is critical, African leaders should balance the exploitation of all energy resources. A unified stance in the global energy transition is essential to ensure Africa's voice and interests are heard and respected.



# Address by Dr. Sulemanu Koney (CEO, Ghana Chamber of Mines)



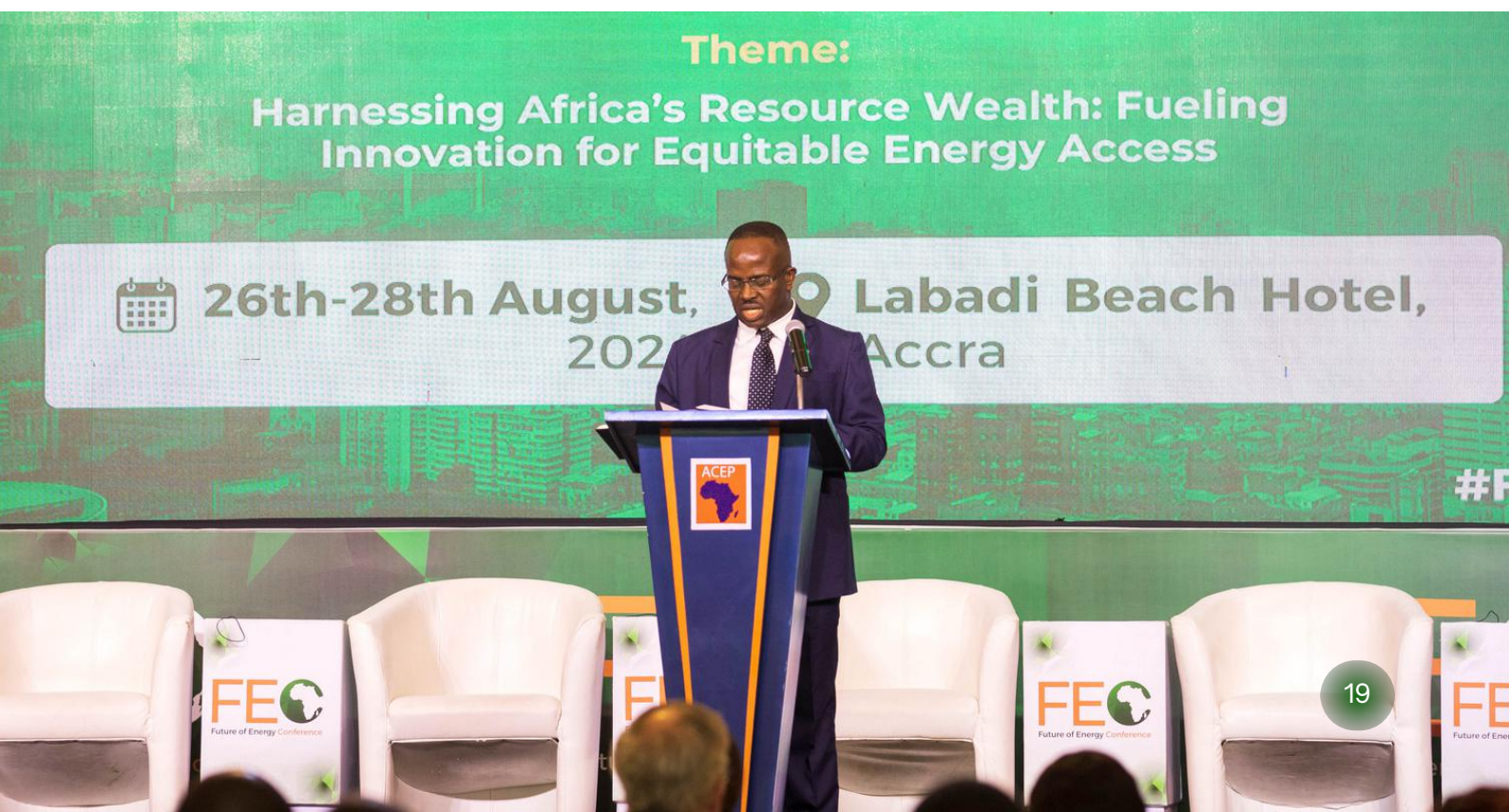
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On energy minerals, it is worth rethinking how to promote investment in exploration. With several years of mining experience in Africa, we need to focus on raising mining capital for exploration from within the continent. Raising funds through local stock exchanges and leveraging local pension funds to finance mining projects, especially exploration, requires serious consideration. We need to put our money where our mouth is.

Dr. Koney emphasized the economic opportunities presented by Africa's vast mineral resources and the necessity for a proactive approach to exploration and exploitation to harness these opportunities. Therefore, the African Union's role in certifying resource and reserve estimations is a positive step towards ensuring transparency and accountability in the sector.

He also showed the importance of sustainable energy access to the mining industry, a significant consumer of electricity and other petroleum products. He noted that interconnected grid infrastructure, like the West African Power Pool, is crucial to addressing unreliable and costly power, a significant bottleneck in the mining sector. He called for Africa to explore innovative ways to balance sustainable exploration, utilization of its fossil resources, and integrating renewable energy.

He reiterated that the mining industry plays a crucial role in the energy transition, serving as a nexus between resource extraction and energy generation. Therefore, a strategic approach to mineral exploration and exploitation is essential for positioning Africa to leverage its natural resources for sustainable economic development.



# Innovation, Research and Development in Africa's Energy Systems

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First Plenary





## Key Discussion Points

- Governments must aggressively expand electricity access to the majority of Africa's population without access to clean energy, challenging the current dominance of a few countries in the continent's energy supply.
- Governments must tackle challenges related to geopolitics, financial constraints, and socio-economic factors to facilitate the shift from fossil fuels to renewable energy, while civil society should advocate for increased investment in innovation, research, and technological advancements.
- Governments must allocate a portion of diaspora bond funds specifically to innovation and R&D mechanisms for energy transition projects.
- Leaders must prioritize innovation, enhance R&D, and improve legal frameworks to attract investment in solar energy, while investors should focus on expanding funding and strengthening utility creditworthiness.
- The private sector must create opportunities for young people through job creation in the energy transition, demonstrating that this shift can lead to growth rather than job losses.
- Governments must invest in transmission infrastructure to reduce energy losses in solar power generation, while industry should leverage Africa's abundant critical minerals for local battery production to lower energy costs.

# Climate Finance, Infrastructure Development, and Investment

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Second Plenary

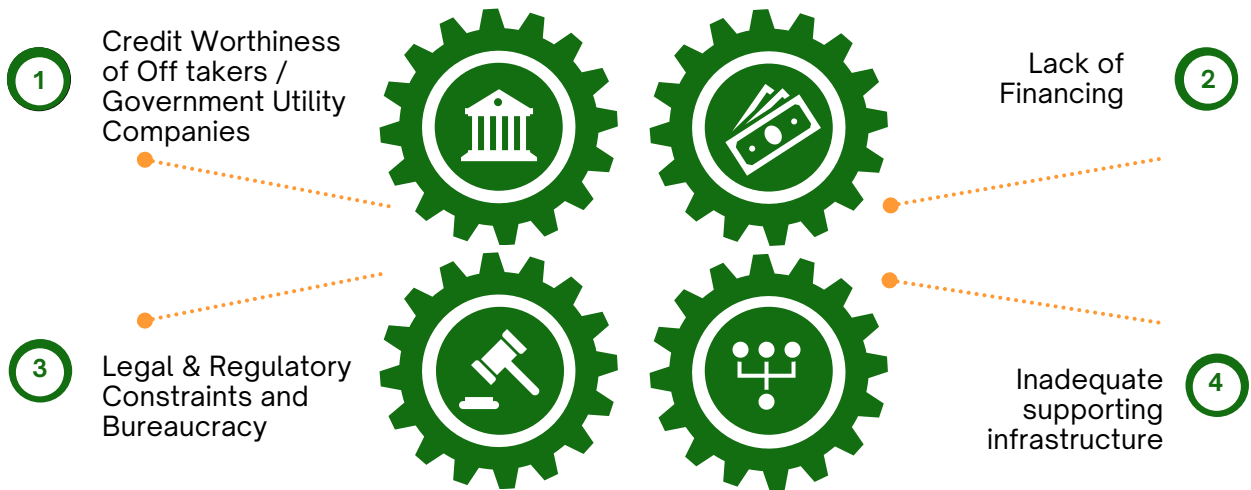






Presentation by  
**Mr. Yaw Appiah Larley**  
 Financial Advisory Partner,  
 Deloitte Africa

## Major Challenges with Financing Energy in Africa



## Innovative Financing Solutions





## Key Discussion Points

- Climate change disproportionately affects Africa with significant challenges such as extreme weather, rising sea levels, and desertification. There is an urgent need to close the estimated USD 100 billion climate finance gap to address these issues effectively.
- The global financial system needs reforms to eliminate biases against African economies, particularly concerning high credit costs. Rechannelling funds from fossil fuel subsidies to climate finance could significantly impact Africa's ability to invest in sustainable development.
- Africa must innovate in climate financing through effective collaborations among multilateral agencies and structured energy pacts. These partnerships can leverage resources to support renewable energy projects, addressing energy poverty and enhancing access to sustainable energy solutions across the continent.
- Countries like Ghana have shown efforts in carbon market initiatives. However, its successful outcome hinges on robust regulatory frameworks and institutional structures. Lessons learned from more advanced carbon markets can guide African countries in developing effective mechanisms for carbon trading and climate action.
- Africa must develop regulatory frameworks that support public-private partnerships. These frameworks are crucial for investment attraction in sustainable energy initiatives. Such frameworks should also provide safeguards to manage risks that deter investors.
- Africa must build expertise in climate finance, particularly in developing attractive project proposals and managing funds effectively. Capacity-building initiatives are critical for creating bankable projects and ensuring robust governance frameworks.
- African governments must engage civil society and ensure inclusive project implementation. This engagement builds community support to ensure funds reach their intended purposes amidst governance challenges.

# From Minerals to Clean Energy; Building an Integrated Regional Value Chain of Energy Transition Technologies

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Third Plenary



Presentation by

**Mr. Ian Gary**

Executive Director,  
FACT Coalition

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Curbing illicit financial flows should be at the top of the list of innovative financing mechanisms to provide governments with the revenues they need to invest in the energy transformation and grapple with the impacts of the climate crisis. Making this happen requires global cooperation.

**\$88.6 Billion**

Africa loses this amount annually due to illicit financial flows (IFFs), including tax evasion, money laundering, and tax avoidance.

Curbing IFFs could cut Africa's Sustainable Development Goals (SDGs) financing gap, currently estimated annually at

**\$200 Billion**

**\$1 Trillion**

corporate profits, primarily from large American multinationals, are booked in tax havens each year.

**\$100–240 Billion**

in lost tax revenue is caused by profit shifting by corporations annually, disproportionately affecting Global South economies.



## Key Discussion Points

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# Driving Sustainable and Equitable Energy: Enhancing Funding Strategies for Effective Advocacy and Impact

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Fourth Plenary



# for Effective Advocacy and Impact

**Moderator**  
Benjamin Boakye  
Executive Director, Africa  
Centre for Energy Policy

**Panelist**  
Rita Effah  
Senior Climate Finance Officer,  
African Development Bank

**Panelist**  
Mohamed Sultan  
Regional Lead, Africa, Global  
Methane Hub



## Key Discussion Points

- Civil Society Organizations and research institutions should thoroughly understand the priorities and strategies of funding agencies. Aligning projects with donor focus areas and investing in identifying unique selling points can improve funding prospects.
- NGOs and CSOs should prioritize improving their organizational health and institutional development. This includes having a functional structure, transparent financial practices, and strategic collaborations.
- International and regional organizations like the African Development Bank (AfDB) provide funding through initiatives like the Africa Climate Fund, specifically targeting climate action at the local level. NGOs and CSOs must develop solid project proposals to secure these funds.
- The grant application process is highly competitive, and CSOs and NGOs must be well-prepared with thorough documentation and a solid understanding of available funding requirements. They must ensure a more professional approach, such as applying through official calls for proposals.
- CSOs should diversify their funding sources and explore investment opportunities to ensure long-term sustainability. Building broad, long-term relationships with multiple donors and enhancing organizational visibility are vital strategies.
- Funding often requires local integration and partnerships. NGOs should collaborate with local entities and focus on relevant, impactful projects that resonate with donor interests and address specific regional needs.

# Key Points from Side Events





# Accelerating Sustainable Mobility: The Future of Electric 2 And 3-Wheelers in West Africa

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## The Electricity Hub

- The high upfront cost of E.V.s is a significant barrier to market adoption. Similar to those used in other countries, fiscal incentives are essential for accelerating E.V. adoption in Africa.
- Africa must develop the capacity to maintain, manufacture, and recycle EVs and their batteries. Policy frameworks can play a crucial role in expediting this process.
- The absence of E.V. quality standards in Africa leads to discrepancies between manufacturer-reported performance and actual results. Regulating used E.V. imports and implementing measures like battery life limits and a battery passport system can help manage the quality of used E.V.s.
- While quality standards are necessary, they should not hinder market access by making E.V.s unaffordable. A balance between performance, affordability, and incentives is critical to increasing EV availability.
- The private sector has the potential to invest in charging infrastructure, but supportive policies, incentives, and tax exemptions are required to mitigate the high initial costs and encourage investment.

# Bridging the Gap: Integrating Youth, Women, and Persons with Disabilities into the Net- Zero Energy Workforce

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## Strategic Youth Network for Development (SYND)

- Governments, industry, and civil society must ensure the integration of youth, women, and persons with disabilities into leadership roles in the NetZero Workforce. These efforts can be achieved through mentorship and empowerment programs that provide technical knowledge to lead and inspire others.
- Governments and the private sector should forge strategic partnerships and create accessible funding opportunities to scale up businesses and innovations of young people. Young people must also leverage platforms like LinkedIn to build strategic relationships, connect with industry leaders, and access valuable resources.
- Governments, educational institutions, industry, and civil society must collaborate to develop curricula that equip young people with essential digital skills for managing technologies like smart grids.
- Governments and industry must actively nurture and support youth-driven innovations, ensuring that promising ideas are not prematurely abandoned but are guided toward success.
- Governments and industry must ensure that infrastructure and opportunities in the energy sector are inclusive and accessible to persons with disabilities. They must deliberately spotlight innovations by persons with disabilities to enhance equal opportunities in the energy transition.

# Regional Collaboration for Emissions Management in Sub-Saharan Africa: Towards Effective Management of Methane and Short-lived Climate Pollutants (SLCPS) in the Energy Sector

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## Stakeholder Democracy Network (SDN)

- Methane, a potent greenhouse gas 80 times more powerful than carbon dioxide over 20 years, poses a significant threat to Africa's climate and air quality. Effective methane management becomes increasingly crucial as the oil and gas sector grows.
- Methane abatement efforts must be holistic to encompass the entire oil and gas value chain, not just gas flaring but also venting and fugitive emissions. Methane management strategies should be sector-specific and include broader SLCP mitigation actions.
- Africa must develop localized strategies for securing funding to manage methane and SLCPs. Implementing circular economy strategies such as waste to energy, as exemplified by Angola, is essential for reducing methane emissions from landfills.
- Continuous collaboration among academia, policy think tanks, and governments is vital for identifying gaps and improving methane management. Peer-to-peer support and learning from leading African oil and gas producers can enhance regional methane abatement efforts.

# Green Electrification for Rural and Underserved Communities in Africa: The Role of Smart Biogas Technologies (SBT)

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## Go Green Smart Biogas Technology Project

- Governments and industry must promote biogas technology as a sustainable solution for converting raw organic waste into eco-friendly energy. This technology provides reliable heat, electricity, and fuel while effectively managing waste.
- Governments and community organizations should recognize the interconnectedness of water, sanitation, and energy. Hence, they must promote integrated approaches to development that acknowledge the critical role of water in energy production and the importance of sanitation in many countries.
- Governments and industry should advocate for biogas as an alternative to clean cooking, emphasizing successful tests which demonstrate its safety for household use. Despite the presence of hydrogen sulphide in production, biogas remains a viable and safer energy option.
- **Academia, industry, and governments** must strengthen collaboration to gather the quantitative data needed to advance biogas technologies and ensure their effective implementation in low-waste and rural communities.

# Key Strategies for Methane Reduction in Ghana

## Environmental Protection Agency (EPA) Ghana & Africa Centre for Energy Policy (ACEP)

- Ghana has joined over 150 countries in committing to the Global Methane Pledge, aiming to reduce methane emissions by 30% from 2020 levels. Despite existing policy frameworks, methane emissions in Ghana have increased by 32% over the past decade, primarily driven by livestock, wastewater, solid waste, and the oil and gas sector.
- Ghana plans to create a national methane roadmap, update its methane inventory, and revise its Nationally Determined Contributions (NDCs) to include methane-specific targets by 2024. These efforts aim to bridge policy, technical, and financial gaps and align with the Sustainable Development Goals (SDGs).
- Ghana's M-RAP will be developed through stakeholder engagement, sectoral consultations, and collaboration with the National Development Planning Commission (NDPC). The plan will be integrated into national planning processes.
- Ghana is exploring technological solutions to address methane emissions, mainly from livestock. Feed improvement programs and investments in waste management infrastructure are being pursued as part of a broader strategy to reduce methane emissions.



# Innovating the Future: Zambia's Energy Transition and E-Mobility Revolution

## Zambian Electric Mobility Innovation Alliance (ZEMIA)

- The Zambian government has shown political commitment by reducing taxes on electric vehicles (EVs) and related infrastructure. However, there is an urgent need to prioritize local battery manufacturing to support the transition to EVs.
- There is a strong emphasis on regional cooperation, with efforts to eliminate trade barriers, harmonize visas for skilled labour, and promote sustainable mining practices. Zambia is collaborating with neighbouring countries, including the Democratic Republic of Congo, to leverage critical minerals for industrialization.
- Zambia's energy policy is forward-thinking, focusing on expanding renewable energy. The country aims to increase its renewable energy capacity to 10,000 MW by 2030 and 23,000 MW by 2050, with a significant portion coming from solar energy.
- Zambia is implementing an Integrated Resource Plan to enhance renewable energy, setting ambitious short-term and long-term goals for local E.V. battery production and eventual E.V. manufacturing. This plan also addresses current energy production shortfalls and emergency supplies.
- A regional platform has been established to tackle the energy gap and provide technical expertise. Collaborative approaches are emphasized to overcome challenges and improve access to information.

# Modernizing Legal Frameworks and Revenue Management for a Sustainable Energy Future in Ghana

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## Africa Entrepreneurship Dialogue (AfED)

- Africa must actively participate in defining key terms related to green energy and energy transition to avoid being dictated to by external definitions. The continent should leverage its resources and ensure it is not left behind in the global energy transition.
- Africa must advocate for a just transition which emphasizes the need to address energy poverty and adapt the transition to its specific circumstances. An abrupt shift away from fossil fuels may not be feasible in the short term, and a more gradual approach is necessary.
- Successful energy transition requires accompanying policy and institutional reforms. National targets, such as net zero, must be aligned with practical, sustainable approaches to avoid stranded assets and ensure effective resource utilization.
- Africa should focus on creating a domestic market for its oil to avoid excessive reliance on exporting resources.
- Ghana should focus on developing a solid medium-term plan integrated with energy transition goals rather than relying on long-term plans that have historically been ineffective. Building effective institutions and focusing on outcomes over scattered projects will drive better results and alignment with sustainable development goals.

# Corruption: A Major Hindrance to Africa's Transition to Sustainable Energy

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## HEDA Resource Centre

- Governments and policymakers must establish a robust legal and policy framework that emphasizes transparency, accountability, and active participation to drive meaningful change in Africa's energy transition.
- Civil society and the media play a crucial role in advocating for policies, exposing corruption, and holding stakeholders accountable by asking critical questions that demand transparency.
- Independent oversight bodies are essential for uncovering corruption and mismanagement, ensuring that government actions are transparent, and laws are enforced appropriately.
- Governments and international organizations like the Extractive Industries Transparency Initiative (EITI) should collaborate to enhance oversight and minimize corruption opportunities. Localizing transparency initiatives will ensure that affected communities are informed and directly benefit from these efforts.
- Educational institutions and legal bodies must integrate anti-corruption principles into legal education, equipping future lawyers with the skills necessary to uphold integrity in the energy sector.
- Effective leadership in Africa's energy transition requires a participatory approach, clear goal setting, and consistent enforcement of consequences to prevent corruption and ensure sustainability.



# Green Digital Transformation: How Digital Innovation Drives Green Transition for a Sustainable Future

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## Africa Centre for Digital Transformation (ACDT)

- Africa's natural energy sources can be harnessed as green solutions, with digital innovation playing a vital role in advancing climate actions and enhancing energy sustainability.
- Universities and research institutions should lead the development and promotion of green technologies within the energy industry, driving innovation and applying sustainable practices.
- Governments and infrastructure developers must address inadequate infrastructure, which hinders the integration of climate action and digital technologies, as overcoming these challenges is crucial for facilitating technology adoption.
- Governments should incorporate green digital solutions to create innovative financing options that attract investment in the green energy sector.
- Community organizations and local governments must engage communities to assess their energy needs using digital tools to develop targeted solutions.
- Governments must create an enabling environment for green digital technologies and formulate effective regulations to establish a Pan-African data platform and drive digital transformation in the green energy market.

# Future of Oil and Gas in Facilitating Access to Affordable and Reliable Energy for Africa

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## Society of Petroleum Engineers (SPE), Ghana Section

- Governments must balance the role of oil and gas with renewables as Africa transitions from energy poverty to energy security. This strategic approach is essential given the continent's large, untapped petroleum reserves and high demand for oil and gas.
- Governments and industry leaders must consider the varying economics of energy transition across regions, factoring in local and continental issues. They should also be aware of geopolitical influences, such as OPEC and Russia's role in global energy pricing, which can shift foreign direct investment towards renewables.
- Industry stakeholders should adopt effective models for cleaner energy, such as transitioning from crude oil to natural gas for power generation and implementing methane management practices. The market should guide the shift to renewables rather than relying on subsidies.
- Regulatory agencies must establish fair pricing mechanisms that protect consumers while promoting investment in the energy sector. Additionally, governments should actively leverage regional projects like the West African Gas Pipeline (WAGP) to enhance energy security and affordability.
- Regional governments and civil society must collaborate to forge strong partnerships that address Africa's pressing energy needs.

# Industrial Policy Priorities for Ghana in a Context of Energy Transition and Industrial Decarbonization

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**King's College London, University of Aberdeen, & The British Academy**

- Governments must revisit the historical context, including significant projects like the Volta River Project, to understand the current energy landscape. A renewed focus on industrial policy is essential for supporting Ghana's energy transition and decarbonization efforts.
- Industry leaders must navigate the challenges of transitioning from traditional carbon-intensive industries to green technologies. They should actively explore opportunities in strategic sectors like agro-processing and textiles.
- Policymakers must ensure effective policy formulation through inclusivity and clear communication, including translating policies into local languages. This approach is vital for overcoming challenges and effectively utilizing the country's resources and expertise.
- Local governments and regional stakeholders should localize industrial policies to benefit rural communities. Integrating regional efforts, especially in manufacturing electric vehicles in West Africa, is crucial for aligning with continental policies and achieving strategic goals.
- Civil society and the public must be involved in policy formulation and address educational curriculum and political landscape challenges. Leveraging inherent strengths and aligning with regional and national policies are critical to a successful energy transition and industrial development.

# Localizing Clean Cooking Solutions: Harnessing Ethanol for Affordable and Sustainable Energy Access

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## Africa Centre for Energy Policy & Ghana Alliance for Clean Cooking

- Local ethanol producers in African countries face major challenges, including limited and unsustainable feedstock, limited capital access, high production costs, and difficulties in market penetration. In Kenya, although sugar molasses is the primary feedstock, there is an exploration of alternative crops like sorghum.
- Governments must address the import-driven nature of ethanol production by incentivizing large-scale local production, making ethanol fuels more affordable and advancing the adoption of clean cooking solutions.
- Countries like Ghana and Kenya are developing national strategies to enhance local ethanol production. Whereas Ghana is focusing on a national clean cooking strategy that considers ethanol a clean cooking fuel, Kenya is incentivizing local production through its clean cooking strategy.
- Governments must implement or strengthen policies to regulate and balance land use between food and energy crops production to mitigate impacts on food security while promoting sustainable feedstock cultivation.
- Ethanol producers must ensure production efficiency through innovation and strategic partnerships with other industries (e.g., ethanol-producing and Agro-processing companies).
- Research organizations and governments should collaborate and prioritize studies that address key issues such as feedstock sustainability, food security impacts, and market dynamics. These works are essential for understanding and resolving these challenges to ensure a more stable and sustainable ethanol market to advance clean cooking objectives in African countries.

# Promoting Inclusive Energy Transition in West Africa: Ensuring Equity for Oil-Rich Communities

## Spaces for Change (S4C)

- Civil society organizations must prioritize sensitization and training through community consultations and policy analysis to promote an inclusive energy transition. Advocacy efforts should ensure that marginalized voices are included and energy transition policies are effectively implemented.
- Governments in countries like Nigeria must address the significant environmental degradation and lack of consultation in oil exploitation areas. They must also engage with communities to alleviate fears of job losses from the transition and provide solutions for replacing lost jobs and improving local infrastructure.
- Local governments should continue their progress with consultations while addressing issues related to communication in local dialects and technical jargon. They must also plan carefully for the transition's impact on revenue sources, emphasizing capacity building.
- Governments and industry stakeholders must leverage Africa's abundant renewable resources while overcoming technical capacity and funding challenges.
- African states must work towards better intra-African collaboration to address fragmentation. For example, efforts should focus on power pooling and people-centric policies to tackle existing challenges.
- Policymakers should consider the potential for economic displacement during the transition and ensure that local communities are adequately prepared and educated for the changes ahead.
- African governments must strengthen collaboration to enforce collective action and better utilize available funding for energy transition initiatives.
- Civil society organizations should collaborate more effectively to improve access to financing and enhance the effectiveness of advocacy and transition strategies across the continent.



# African Lithium Strategies - An Eth-Nadel and NREGI Alumni Event

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## ETH-NADEL

- Governments in African countries are increasingly restricting the export of raw minerals, with some nations implementing bans on lithium exports. This is part of a broader strategy to add value within the continent, as seen in Nigeria's focus on battery production and cooperative agreements between Zambia and the Democratic Republic of Congo for electric battery manufacturing.
- Global organizations have established initiatives to strengthen critical mineral supply chains, such as the Mineral Security Partnership by NATO. However, excluding resource-rich African countries from decision-making and governance raises concerns about their representation and influence in global mineral markets.
- Governments and industry stakeholders must develop robust fiscal frameworks and focus on value chain integration to maximize revenue from transition minerals like lithium. They must also address the challenges posed by unpredictable commodity prices, ensure transparent contracts, and develop local expertise for sustainable and profitable mineral production.
- Governments and educational institutions should prioritize capacity building to improve the monitoring of costs and revenues and align fiscal regimes with revenue targets.

# Unlocking Africa's Wealth: The Path to Mineral Value Addition and Beneficiation

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## Global Witness

- Governments and the mining industry must prioritize value addition and beneficiation in mineral processing to maximize economic benefits while minimizing negative environmental and social impacts. This approach seeks to balance economic gains with sustainability.
- Governments and industry leaders must effectively manage mineral resources by addressing challenges related to costs and investment, ensuring that the mineral sector contributes positively to the economy.
- Industry stakeholders should prioritize integrating local companies into the mineral supply chain to stimulate economic growth. They must also leverage local access to power, finance, and labor to enhance this integration and strengthen local economies.
- Government initiatives should focus on training and empowering local businesses to meet industry standards to drive regional market development and enhance their role in the mineral value chain.
- Governments must conduct thorough social and economic assessments before signing mineral extraction deals to ensure that agreements are beneficial, sustainable, and aligned with long-term national and regional goals.
- Local communities must be empowered to benefit from mining activities. Adequate community development funds, transparent contracts, and meaningful engagement in environmental impact assessments are essential to maximizing local benefits and addressing adverse impacts while promoting sustainable local development.

# Optimizing Revenue Mobilization from Africa's Quarry Sector: Lessons from Ghana

## Africa Centre for Energy Policy

- Governments in countries like Sierra Leone are working to address regulatory challenges in the quarry subsector by transferring oversight from the Ministry of Works to the Ministry of Minerals, aiming to improve management and governance.
- Government agencies must improve oversight and ensure accurate production reporting in the quarry sector to enhance revenue mobilization and address gaps in monitoring and reporting.
- Government authorities must address inefficiencies in revenue collection within the quarry sector, as discrepancies between potential and actual revenue highlight the need for improved monitoring and oversight systems.
- Civil society organizations should advocate for better domestic revenue mobilization in the quarry sector. They must conduct research and coordinate findings to develop regional strategies for improved monitoring and governance of the industry.
- Policymakers should reform tax policies to include artisanal quarry operators and simplify access to government funding for the quarry industry. This would require creating more accessible funding mechanisms and effective tax regulations.
- Regional bodies should collaborate to develop a legal framework for the quarry subsector, as most countries lack specific regulations. This framework should include a standardized licensing process to ensure compliance and accountability within the sector.
- Governments should explore public-private partnerships (PPPs) to address revenue losses in the quarry subsector. This collaboration can incentivize private investors while enhancing the effectiveness of quarry oversight.



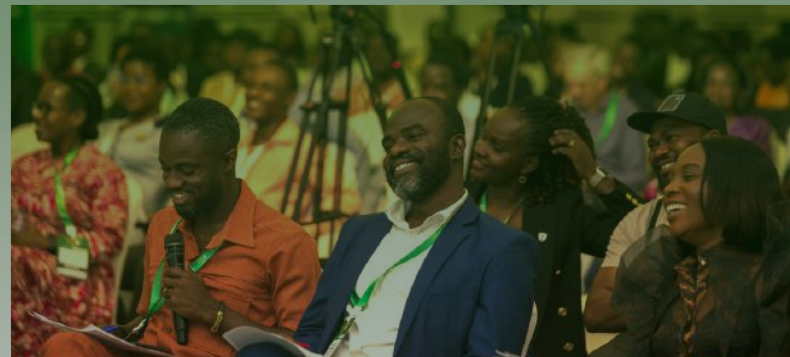
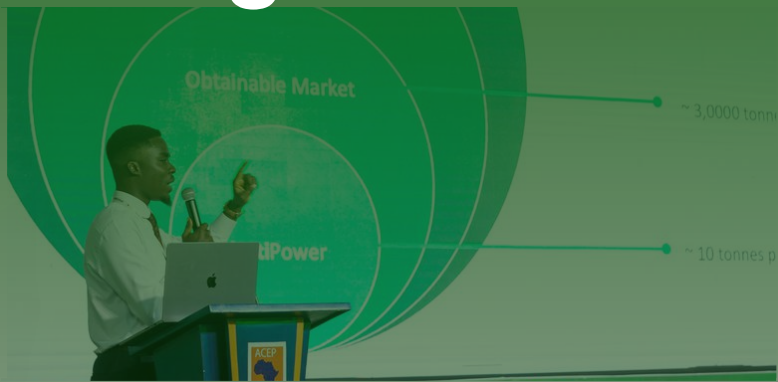


# Promoting Women's Participation in Africa's Extractive Value Chain

## Africa Centre for Energy Policy & Women in Mining Ghana

- Governments and industry stakeholders must address the limited participation of women in the mining sector, particularly in the artisanal mining space. The energy transition in Africa presents an opportunity for women to integrate into the mineral value chain, especially in critical minerals like nickel, manganese, bauxite, and lithium.
- Governments and industry leaders should intensify efforts to economically empower women through gender-sensitive local content frameworks. Women should be encouraged to focus on critical minerals essential for Africa's decarbonization agenda and participate in partnerships to share ideas and opportunities within the sector.
- Advocacy groups and industry stakeholders should encourage women to engage not only in mining but also in downstream segments of the value chain, such as value addition to minerals and marketing. Promoting career pathways for young women in mining and supporting female start-ups is crucial for long-term sector development.
- Banks and financial institutions should offer training and financial assistance to women-led businesses in the mining sector. Expanding initiatives such as webinars and other public engagements on financing opportunities for women in mining can further support female participation and leadership in the industry.
- Women and women led SMEs were encouraged to exploit and tap into regional trade opportunities facilitated by AfCFTA, positioning them to benefit from the evolving energy landscape and transition economy through regional partnerships and wider market access.

# Highlights from the Innovation Challenge



The innovation challenge showcased several groundbreaking solutions, each tackling critical energy security, management, and environmental sustainability issues. The pitched innovations included:

**Affordable Solar Clean Cooking Technology:** This innovation introduces a low-cost, thermal storage insulated solar cooker designed without expensive batteries, making clean cooking more accessible, especially for women in rural areas.

**Smart Energy Access Control:** This innovation leverages machine learning and data analytics to enable detailed tracking and control of energy usage and improve energy management and security while creating job opportunities in smart grids.

**Biogas-to-Electricity Conversion:** This solution converts biogas into electricity, supporting renewable energy goals and offering a viable alternative for underserved communities.

**Waste-to-Energy with Plastipower:** This project tackles waste management by converting waste to electricity with high scalability potential due to the availability of plastic waste across Africa.

**Educational Climate App:** This mobile app provides localized climate education through voice features and multiple language options, making climate information more accessible to communities.

**Portable Hydropower Technology:** This small-scale hydropower system generates electricity from flowing water, providing a sustainable energy solution for remote rural areas with limited energy access.

**Portable Biogas Plant:** This portable plant transforms organic waste into biogas for cooking and lighting, promoting clean energy, waste management, and public health improvement.

**Portable Hydropower Technology:** This innovation presents a small-scale hydropower system tailored for rural communities. It generates electricity by utilizing the energy from flowing water, providing an affordable and sustainable power solution for remote areas with limited access to conventional energy sources.

# Key Outcomes

Some of the immediate outcomes from the 2024 Future of Energy Conference include the following.

**Increased Stakeholder Collaboration:** The conference fostered stronger partnerships between governments, private sector players, civil society, and regional organizations to accelerate the energy transition in Africa.

**Policy Recommendations:** The event generated actionable policy recommendations on renewable energy adoption, energy access, and sustainable financing models, which can inform future energy policies across Africa.

**Advancing Diversity, Equity, and Inclusion (DEI):** Through dedicated side events and discussions, the conference made significant strides in promoting the inclusion of marginalized groups such as women, youth, communities, and PWDs in the energy sector, exposing them to diverse opportunities and strategies to be key participants.

**Promotion of Innovative Financing:** The conference spotlighted the need for innovative financing mechanisms, emphasizing capacity strengthening of public and private actors to unlock green funding for clean energy projects, particularly through public-private partnerships and blended finance.

**Empowering Women in Energy:** By ensuring a gender-diverse speaker lineup and discussing ways to enhance women's roles in leadership, the conference contributed to empowering women in the traditionally male-dominated energy sector.

**Commitment to a Just Energy Transition:** The conference underscored the importance of ensuring that Africa's energy transition is equitable, with an emphasis on inclusive policies and localized solutions that benefit marginalized and underserved populations.

**Fostering Innovation and Technology Development:** The conference featured an innovation challenge and exhibitions that showcased cutting-edge technologies and creative solutions aimed at addressing critical energy sector challenges. This encouraged collaboration and inspired innovative thinking to advance research and development, highlighting the potential for scaling practical solutions to meet Africa's future energy needs.

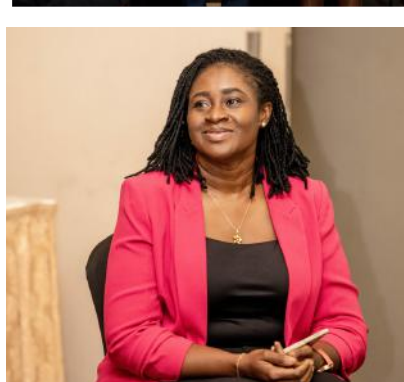
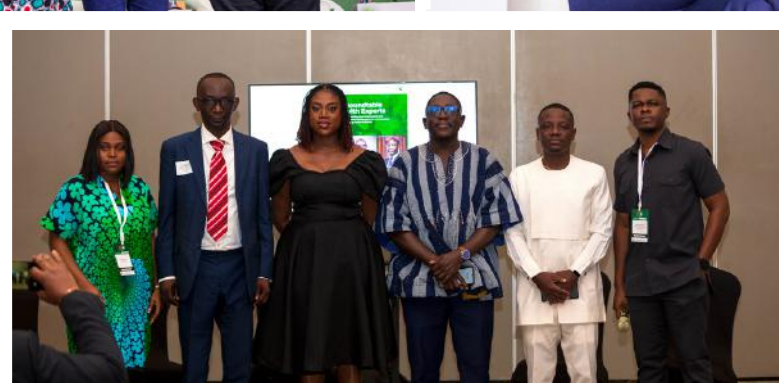
# Conclusion

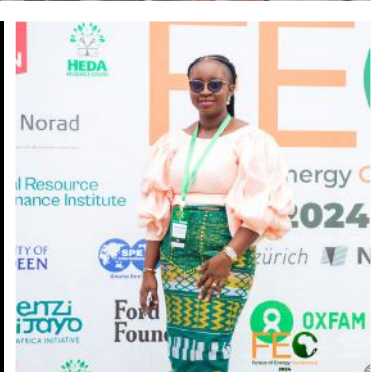
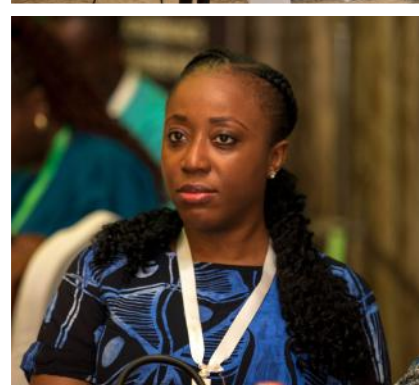
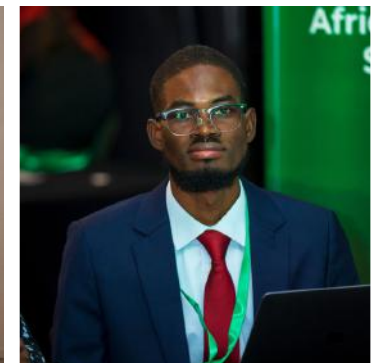
The 2024 Future of Energy Conference, convened by the Africa Centre for Energy Policy (ACEP), provided the platform to address the critical challenges and opportunities in Africa's energy landscape amidst the global shift towards sustainable energy systems. The discussions highlighted the need to balance energy access, economic growth, and climate goals, with a focus on policy reform, stakeholder collaboration, accelerated innovation, renewable energy investments, and equitable solutions.

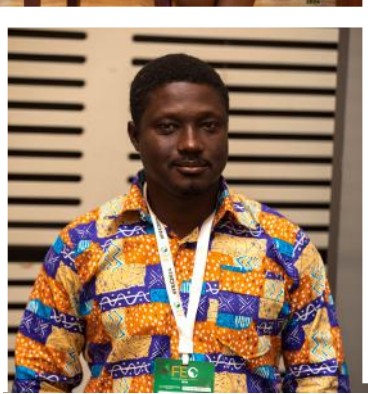
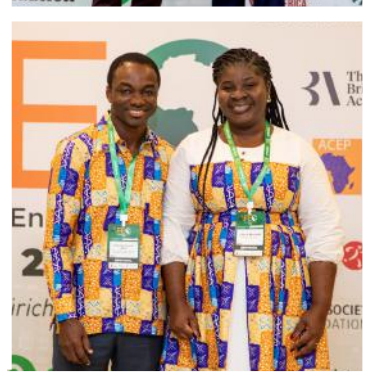
Key insights emphasized the importance of fostering regional cooperation and localizing energy solutions to enhance resilience and inclusivity. The conference also underscored the critical role of decentralized renewable energy systems, energy storage, and clean cooking technologies in expanding energy access and reducing emissions across the continent. A central theme that emerged was the necessity of innovative financing mechanisms to unlock access to funds for key policy initiatives and augment private sector participation. This includes creating financial models that de-risk investments in the energy sector, leveraging blended finance, and forming public-private partnerships to accelerate project implementation. The discussions further stressed the need to prioritize investments in innovation, research, and development to drive technological advancements that can meet Africa's unique energy challenges. Governments and stakeholders were urged to focus on fostering innovation ecosystems that support local solutions and build capacity across the energy value chain.

As Africa transitions towards a more sustainable energy future, ACEP and its partners will engage with key stakeholders on the insights from this conference to inform policies and strategies to drive action. The 2024 Future of Energy Conference reaffirmed the collective commitment to a just energy transition, with Africa positioned to lead the way through innovative financing, targeted investments, and forward-thinking energy policies.

The Africa Centre for Energy Policy (ACEP) deeply appreciates its partners, speakers, and all participants for the continued commitment and support for the successful convening of the 2024 Future of Energy Conference. A special thank you to our funding partners.









For photos from FEC2024,  
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# Thank You

to our partners and to all parties who contributed to making this conference a success.

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## Future of Energy Conference

# 2024

