



BUILDING ROBUST SYSTEMS FOR AFRICA ENERGY

AFREC Message

*To our Member states, stakeholders and partners
in the Energy Sector and readers,*

The year 2022 has been an amazing and yet challenging one. After surviving two years of locked down and the pandemic, we have managed to get back to our feet to implement our mandate as entrusted upon us by our African Union Member states, to contribute to Africa's energy sector transformation.

We are therefore happy to bring you this edition, to remind all our stakeholders and partners on the strides we have made and the future prospects for Africa in energy.

The edition brings you key information on how we have contributed to the sector, our annual achievements, features on how Africa can develop

a domestic market on Oil and Gas, the support we provided to our members states to develop and improve their National Energy Information System (NEIS) and conducting a bioenergy survey in Mozambique, support to Malawi, Uganda and Morocco to improve reporting on NDCs, saving assessment for the East Africa region and associated countries, and so much more.

We do hope you enjoy reading this bulletin and you will continue to support, collaborate and engage with us in the upcoming year 2023, in our pursuit of building 'the Africa We Want' and achieving Africa's aspiration for Agenda 2063 and UN agenda 2030.

AFREC wishes you a splendid holiday and a restful festive.

Amplifying Africa's Voice on Oil and Gas at the 2022 Africa Oil Week



On the sideline of the 2022 Africa Oil Week (AOW), the African Energy Commission (AFREC) in collaboration with the Hyve Group organised a Ministerial and VIP Symposium under the Africa's Energy Transition & Africa Domestic Market for Oil & Gas Production.

The Symposium commenced with a Ministerial Dialogue on 3rd October 2022 attended by more than 25 Ministers from AU Member States to discuss a study report prepared by AFREC on *"Africa and the Just Energy Transition:*

Considerations for the Expansion of the African Oil & Gas Domestic Market". The report analyses the prerequisites for the establishment of the African Oil & Gas Domestic Market, in cognisant of the advantage for economies of scale offered by African Continental Free Trade Area (AfCFTA), to allow countries with significant oil and gas reserves to develop cross-border infrastructures for trading and processing of crude oil and improve energy access to countries where energy is in significant demand.

The dialogue was followed by an open session on the development of a balance in the energy mix and transition in Africa ending with a plenary session which deliberated on sustainable growth on a low carbon market, on the 4th October 2022.

Her Excellency Dr Amani Abou-Zeid, Commissioner for Infrastructure and Energy at the African Union delivered a keynote address, noting that Africa's growing population, fast rate of urbanization, ensuring solid energy systems, extending infrastructure, building resilience- among other many pressing challenges- require increasing current rate of energy generation on the continent using all available energy sources.

"The Africa Union Agenda 2063 in alignment with the Paris Agreement, the African Common Position on energy access and African Energy Transition Programme by AFREC are some of the steps which can chart towards the implementation of the Africa's just energy transition.

Hence, access to affordable energy for productive uses and households in Africa can be achieved mainly by introducing and implementing comprehensive policy tools which can transform the energy sector to amass a big share of renewable resources through an integrated approach, that facilitates the transformation process and attracts the required investment".

She further said that Africa as a responsible partner in the global fight against climate change, the continent remains committed to the goals stipulated in the Paris Agreement. However, these commitments must consider Africa's special circumstances, by balancing Africa's principles on the common situation globally whereas differentiating continental

needs given that Africa's emission is only about 3% and the resources remain unexploited.

Hon. H.E. Gwede Mantashe, Minister of Mineral Resources & Energy for South Africa emphasised on the importance of domestic processing of the mineral resources in Africa for Africa's development. He enunciated the development of the entire oil value chain in Africa so that communities, youth, women, indigenous populace can benefit sustainably. "Our minerals must be developed and transformed here if Africa wants to develop". He further said that Africa cannot be importers of oil and oil products while the continent is amassed with abundant crude oil reserves.

Other Honourable ministers echoed a common message, stressing that African countries must ensure that Africa's pan- African financial institutions should provide adequate support for the expansion of African Oil & Gas Domestic Market.

During the high-level Panel discussion on Natural Gas in the African energy debate moderated by AFREC Executive Director Mr. Rashid Ali Abdallah, panelists recognised that natural gas has a role to play in Africa's sustainable growth. With seventeen countries now producing natural gas and 40% of the world's natural gas discoveries in Africa in last 10 years, natural gas offers a good alternative to fill the continent's energy gaps.

The Africa Oil week brought together AU member states, international development partners, academia and the private sector among others, to discuss, share insights and lesson learned from other institutions.

AFREC conducts a Validation Workshop to support ten (10) African Union member states to create and/or improve National Energy Information System (NEIS)

The African Energy Commission (AFREC) hosted a validation workshop with senior national statisticians and various key stakeholders from Algeria, Botswana, Burkina Faso, Congo, Gabon, Kenya Lesotho, Namibia, Nigeria, and Zimbabwe to validate and provide input into countries Diagnostic

In his opening remark, Mr. Rashid Ali Abdallah, Executive Director of AFREC stated that AFREC's support programme on NEIS will increase the quality of the energy statistic processes which are significant indicators for developing energy policies, designing good strategies for investment, providing



insights necessary for decision making at national level and finally to strengthen capacities of African countries energy experts in the methodology and tools for collecting and managing energy data.

The programme is aimed at building capacity of the aforementioned Member states to build and strengthen their NEIS, improve systems aimed at collecting and validating energy

statistics, harmonizing and streamlining energy statistics processes across Member States and

report and Action Plan, to establish and/or improve their National Energy Information System (NEIS).

The validation workshop will enable the selected members States to analyse and validate the diagnostic report and action plan of their countries. The report and plan have been developed in the last eight months based on stakeholder interviews and supported by continual analysis of data and documentation shared by country focal points, with technical and financial support from AFREC.

reinforcing the adoption of AFREC's methodology on energy statistic and questionnaires.

The validated diagnostic reports and action plans for each country will serve as important execution tools for guiding the implementation of concrete recommendations to create or improve countries National Energy Information System (NEIS) of which ultimately will contribute to better energy planning.



AFREC-Malawi (L) & Uganda (R) Participants

Stakeholder Consultation and Capacity Building to Enhance National Determined Contributions (NDC) Support Centre in Malawi and Uganda

The African Energy Commission (AFREC) together with its partner Vito, through the Ministries of Energy in Malawi and Uganda hold technical stakeholder engagement meeting with government officials, statistics and energy utility agencies, as part of the implementation of the NDC support Centre project. The meeting in Malawi was held from 20-24 June, while the same took place on in Uganda on 27-30 September 2022.

During the same meeting, a subsequent training workshop was held to share insights and understand the two countries energy situation, identify data challenges and how best to address these challenges, to strengthen national statistics data collection and modelling for NDC communication purposes. The training sessions also aimed at enhancing knowledge of energy statistics through practical training, to work collectively to enhance energy data. Amongst others, it focused on the following key areas: the basics of energy data, commodity balances, toolkits for energy statistics

and Energy data for Malawi and Uganda in general.

Speaking during the training, Mr. Thokozani Malunga, Assistant Director of Energy from the Ministry of Energy of Malawi emphasised that Malawi is eager to learn, to address the challenges faced by the country's energy statistics. "We value the support from the partners who are supporting the NDC support Centre implementation to improve energy statistics, and we are confident that these efforts can help us to understand the countries energy balance, so that we able to conduct effective data modelling for our planning purposes", he highlighted.

While in Uganda, Mr. Maarten Pelgrims from VITO addressed participant saying "the general objective of this project is the establishment of an African Knowledge Center for National Determined Contributions, which will increase the capacities in four African countries for the proper preparation of climate communication and improved policy-making in the framework of commitments as set for the

Paris Agreement. He then indicated that the work involves: improving energy statistics collection and reporting, enhancing long-term energy modelling in-country skills and alignment of energy data collection efforts with MRV frameworks for NDC reporting”.

“Uganda reaffirmed its commitment and the availability of participants who come from different sectors such as electricity, petroleum products, renewable energies, climate change, policy and planning, to work for the success of this project”, said Dr Gerald Banaga-Baingi representing the Permanent Secretary of the Ministry of Energy and Mineral Development of Uganda,

Stakeholders in both countries also underlined the importance of quality energy statistics as key cross-cutting and backbone components for policy decision and programme development. They highlighted the significance of setting in place modalities for institutionalising energy statistics at national level, to ensure all key sectors are involved in data collection, and that accessibility to all data is made easier to sectors of the government, for better planning, policy formulation, programme development and implementation.

Thirty (30) participants from Malawi and Twenty-one (21) from Uganda participated in the meeting.

The African Union and Chinese Government Partnership gains momentum under the African Energy Commission.

Capacity building for Africa especially on the energy sector is one of the key priorities geared toward achieving the aspirations of the African Union Agenda 2063, *Aspiration 1- A Prosperous Africa, based on Inclusive Growth and Sustainable Development : Goal 2-Well Educated Citizens and Skills revolution underpinned by Science, Technology and Innovation.*

The goal emphasise on Africa to improve its skills deficit in various sectors of the economy, by empowering its citizens with necessary knowledge to ensure they deliver on “the Africa We Want”.

Thus, the African Energy Commission (AFREC) and the China Renewable Energy Engineering Institute (CREEI) under the partnership between The African Union and Chinese government conducted a capacity building training on large scale Photovoltaic

(PV) Power Stations and PV project development.

The training took place online from 25 -28 October 2022, targeting audiences such as Government Departments, private Sector and academia in Energy sector from African Union Member States and across the world.

The objective of the training was to offer building managerial capacity and professional skills on planning, design, business model, construction, operation and maintenance of PV power stations, and was attended by more than 300 partaking in the training whilst appreciating the importance of the training and the skills they have gained.

« This an important training which emanated from an MOU between African Union and the Chinese government, to enhance skills through capacity building especially for African Member states. The



Unsplash- Andreas Gucklhorn

capacity building targets decision maker, planner and technician”, said Rashid Abdallah, Executive Director for AFREC.

Mr. Jiang Hao, Director of International Department at China Renewable Energy Engineering Institute (CREEI) also emphasised that, “the programmes which have been identified through the partnership paves way for our partnership development,

enhance efforts and consolidate major programme development and designs”.

Under the two entities partnership, AFREC and CREEI are collaborating in other areas such as: Policies for Renewable energy, Energy data- under the African Energy Information System (AEIS) and Energy Transition, apart from the Capacity Building Programme.

AFREC Conducts a Study on Developing Africa's Oil and Gas Domestic Market



With the much over-emphasised the 'Just Transition' and providing universal accessibility to millions of Africans on the content, Africa calls for resources integration, strengthening local produce and investment as well as industrialisation of industries to create jobs, knowledge and skills within the continent.

To strengthen this call and contribute to the implementation of the African Union goal of Transforming the economy of across the continent, the African Energy Commission conducted a study on the exploration and development of crude oil and natural gas (fields and value chains) in Africa and produced a report: "[*Africa and the Just Energy Transition: Considerations for the Expansion of the African Oil & Gas Domestic Market*](#)". The study provides a roadmap to pursue Africa's integration agenda to ensure that Africa invest developing the oil and gas market to promote local consumption,

trade, investment, infrastructure development as well as reduce Africa's reliance on importing oil and gas products outside the continent.

The report also analyses the prerequisites for the establishment of the African Oil & Gas Domestic Market, in cognisant of the advantage for economies of scale offered by African Continental Free Trade Area (AfCFTA), to allow countries with significant oil and gas reserves to develop cross-border infrastructures for trading crude oil, oil products and natural gas to countries where energy is in significant demand and it promotes local production, trade and consumption of goods.

The study is also based on publicly available data for the focus countries for the year 2020 and most recent years, as published on the African Energy Information System (AEIS) of AFREC and cover of the data points required for each country.

The study reveals that a wealth of oil and gas resources provides the economic foundations for the sustainable development of many African countries, while the discovery and development of new hydrocarbon fields continue to provide economic leverage through trade and investment.

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discovery and development of new hydrocarbon fields continue to provide economic leverage through trade and investment. This study has classified the oil and gas value chain in order to ensure that the business focused on upstream, midstream, downstream remain distinct, with clear risk transfer at each stage. Upstream includes all oil and gas field facilities, up to the point where oil and gas are sold or transferred to a transport system.

Advocating Energy Policies to Africa through Energy Policy Briefs

In order to fulfil its mandate and implement the approved Commissions' mandate, AFREC engaged all its key stakeholders locally, regionally and continentally, to provide policy guidance by launching various policy briefs and other studies developed and conducted by the Institution. The policy briefs have been informed by analysing data derived from the African Energy Information System (AEIS).

These data have been collected from Member states through AFREC's focal point and are available on AFREC website.

The [policy briefs](#) which were launched were as follows:

- *Energy Usage by Businesses in Africa*
- *Will Biomass Always Fuel Africa?*
- *The Refining and Manufacture of Oil Products in the African Energy Landscape*
- *Coal in the African Energy Landscape*

The above policy briefs were an addition to already launched policy brief Oil and Natural Gas. The engagement provided insights on the energy outlook of the African energy sector to establish collaborative efforts from African governments and public institutions, as key players for the realisation of the 'Africa We Want', by implementing Agenda 2063, its aspirations on energy and the UN Agenda 2030.

AFREC Continues To Implore Its Technical Skills To Enhance Skills And Knowledge On Energy Statistics Through The 'Training of Trainer's Programme'.



A FREC has ramped up its capacity building initiatives by continuing to increase the African pool of trainers in energy statistic, through the Training of the Trainers (ToT) programme between 09-13 May 2022 in Cote d'Ivoire.

With support from the Africa-EU Energy Partnership (AEEP), a ToT is geared towards building skills of trainers who benefited from a beginner training course which was undertaken in Cote d'Ivoire, in December in 2021.

The advance skills training also aimed to enhance knowledge and quality in energy data collection and processing at national and regional level. The one-week training qualified eighteen (18) participating energy experts from various member states as trainers of others, whilst getting them on par with the previous pool of trainer's who were trained between 2019 and 2021 at an advanced level.

Speaking on behalf of AFREC Executive Director, Mr Abdoulaye Oueddo, Senior Policy Officer for Energy Information System (EIS) at AFREC welcomed the participants and highlighted that the training is in line with the call from member states, to ensure that statistics forms the basis of all policy formulation, monitoring and evaluation for Africa's energy sector development.

"The capacity building programme supports the National Focal Points (NFPs) in the AU member states to strengthen National information system by coordinating energy data collection and validation at national level", he emphasised.

The training will also empower trainers with coaching and mentoring skills necessary for coaching other national and regional energy statisticians.



Validation Workshop on the Biomass Energy Survey Report for Mozambique

Bioenergy remains one of the popular energy resources used in Africa. In Mozambique like in many Sub-Saharan countries, biomass in the form of charcoal, firewood and agricultural residues plays a major role as a primary energy source for households and small businesses, used mostly for cooking and heating. Despite the importance of biomass, there is a lack of recent and comprehensive information regarding the sub-sector.

The African Energy Commission (AFREC) together with the Ministry of Minerals and Energy (MIREME) of Mozambique hosted a validation workshop in with various key stakeholders, officials of MIREME, cooperation partners and the private sector involved in the biomass sector on 24 August 2022, to validate and provide input into the Bioenergy survey report. The survey has been ongoing since April 2022, with technical support from AFREC.

The survey is aimed at assessing household and small businesses bioenergy consumption, updating the baseline of the biomass energy data and providing detailed information on the consumption of biomass in the Southern region of Mozambique. The survey encompasses urban and peri-urban areas in three key regions of Mozambique, namely Maputo City, Maputo Province and Inhambane Province. The provinces were selected based on their concentration of charcoal users, which is a major contribution to deforestation.

Addressing the meeting, Engineer Marcelina Mataveia, Deputy National Director of Renewable Energy at MIRENE said that the survey is an important step for sustainable programming, as biomass remains the major cause of deforestation which promote pollution in households and it is a detrimental effect to the health of users. “To improve

the universal access and provide electricity to our people, we need

to produce input which can improve our planning, bioenergy statistics and strengthen our research and development”.

“A thorough knowledge of the biomass energy sub-sector is vital, particularly as biomass consumption on a large scale has a significant impact on the preservation of forest resources which are vital for climate change mitigation and adaption. In addition, this survey on bioenergy will enhance AFREC and Mozambique co-operation in the area of energy, particularly in the development and utilisation of sustainable and environmentally sound energy”, said Rashid Ali Abdallah, AFREC Executive Director.

“Assessing the household and small businesses bioenergy data status, updating the baseline of the biomass energy, providing detailed information on the consumption of biomass in the Southern region of Mozambique is very crucial. Henceforth, this bioenergy survey in Mozambique is cornerstone to the efforts which AFREC is employing to improve reporting, monitoring and suitability of the biomass resource in Africa”.

The findings from the survey will serve as important input for the biomass energy strategy and to the implementation of concrete measures to improve clean cooking access in urban and rural areas. The results will contribute to improve the energy information system of Mozambique and the African Energy Information System (AEIS) developed by AFREC. Ultimately, it will contribute to better energy planning and improved management of bio energy resources.

Financing Energy Transition in Africa at COP27



The High-Level Forum on Financing Energy Transition in Africa organised by the African Union Commission (AUC) and the International Energy Agency (IEA) deliberated on critical energy issues facing Africa and ways to mobilise adequate finance to accelerate energy access and energy security on the Continent, as well expanding innovative mechanisms to increasing climate finance flows to Africa in the context of 'energy transition'.

African Union Commissioner for Infrastructure

and Energy H.E. Dr Amani Abou-Zeid said Africa expects concrete outcomes from COP27, especially with regard to translating commitments and accords reached in previous climate summits into action. The Commissioner laid out Africa's ambitions to rapidly address energy access challenges by exploring diversified energy resources underlining the need to unleash adequate financing to speed up the process.

While the long-term goal of Africa is to transition towards clean and sustainable energy systems,

the current level of energy access on the continent call for the utilisation of both renewable and non-renewable energy sources to meet its development goals.

Dr Amani Abou-Zeid reiterated that it is crucial to secure meaningful financial commitments and investments for Africa's renewable energy and low-carbon programmes at scale to enhance energy access and support the social and equity dimensions of the just transition pathways. "There remains a huge financing gap from the US\$120 billion required per year, especially in the development of new energy infrastructure. The commitments made by the global community must be fulfilled without any conditions or any further delay."

"Africa's circumstances must be understood, and its strides must be supported highlighting that Africa is the lowest GHG emitting region globally with its emissions will grow to only 3.4 per cent by 2050 if Africa utilises all its available resources", Executive Director Birol-IEA.

Climate finance needs for adaptation in Africa range from US\$259 – 407 billion between 2020 and 2030, with the energy sector adaptation needs ranging from US\$4.5 – 7 billion. The current progress in the implementation of adaptation is not sufficient for African countries to stay ahead of the projected climate change risks and address the adaptation gap, as expenditures on adaptation are already accounting for approximately 10% of African countries' GDP.

Commissioner Abou-Zeid further retold that African Common Position on Energy Access and Just

Transition identifies financing as a critical pillar to achieving Africa's targets of developing its energy sector along a low-carbon and climate-resilient pathway. "Despite its enormous energy needs and opportunities, Africa is only accessing 3% of climate finance leaving an annual financing gap of US\$ 90 billion for its energy access and transition goals. This status quo has to change, and all stakeholders should demonstrate the willingness to make the required policy adjustments that will unlock the flow of financing necessary for energy access and energy transition in Africa."

The event benefited from the presence and enriched views from Ministers, Director Generals and High-level Representatives of the African Union Members States and Member Countries of the IEA including Energy Ministers of Egypt, Kenya and Uganda.

"While Africa is already committed to developing its renewable energy resources, the continent must be given adequate space to exploit its vastly untapped natural resources without compromising the continental and global climate goals," said H.E. Tarek El-Molla, Minister of Petroleum and Mineral Resources of the Arab Republic of Egypt.

The Ministers of Kenya and Uganda shared their countries' experiences in increasing the supply of electricity generated from renewable sources including hydro, geothermal, solar and wind projects to diversify their energy mix.

Facts About AFREC

- A specialised energy agency of the African Union, under the Department of Infrastructure and Energy Created by decision

Mandate

- To implement African energy programmes by coordinating, harmonising, protect, conserve, develop and promote rational exploitation, commercialization and integration of energy resources in Africa. This is done through mapping out of all energy development needs, encourage research, provide technical and capacity building, mobilise resources and establish necessary mechanisms for the exploitation and utilisation of energy resources

Operational Scope

- a. Bioenergy
- b. Energy Efficiency
- c. Energy Transition
- d. African Energy Information System (AEIS)
- e. Oil and Gas
- f. Capacity building programme on energy

2022 Key Projects and Achievements

Completed a study on creating Africa Oil and Natural Gas Domestic Market

Supporting four Member States on the establishment of Nationally Determined Contributions (NDC) centers namely Malawi, Uganda, Mozambique and Morocco.

Developed and continue to maintain the African Energy Information System (AEIS).

Supporting 10 AU member states to Develop and/or improve their National Energy Information System

(NEIS) namely Algeria, Botswana, Burkina Faso, Congo, Gabon, Kenya, Lesotho, Namibia, Nigeria, Zimbabwe.

Trained Forty (40) experts were trained to be trainers on energy statistics and more than 200 experts were trained online on energy statistics.

Produced the [AFREC 2022 Energy Balance](#) publication is available on AFREC website

Developed Africa's [strategic framework for bioenergy data management in Africa](#) with a five-year action plan to support MS to improve bioenergy reporting.

Conducted a Bioenergy Survey in Mozambique.

AFREC has designed a comprehensive capacity building programme to support MS in bridging the skills gap in the field of the energy sector, leading to the 1st capacity building training on large-scale Photovoltaic (PV) power stations and "PV+Model" with the China Renewable Energy Institute under the Framework of the AU-China Energy Partnership.

After a successful energy efficiency saving [assessment for the Southern Africa region](#) conducted in 2021 with UNEP-U4E, the [assessment of the East Africa region](#) was completed. The project provides a summary of the benefits which could be attained from improving energy efficiency and climate friendly lighting, cooling appliances, and equipment.

Produced 8 Policy briefs on Africa's Energy outlook on (a) *Energy Usage by Businesses in Africa*, (b) *Will Biomass Always Fuel Africa?* (c) *The Refining and Manufacture of Oil Products in the African Energy Landscape*, (d) *Electricity generation from fossil fuels In Africa*, (e) *Coal in the African Energy Landscape*, (f) *Household energy use in Africa* and (g) *Electricity generation in Africa* and launched four publicly to member states and stakeholders.

A row of four wind turbines stands in a vast, arid desert landscape. The turbines are white with three blades each, and they are positioned in a line that recedes into the distance. The ground is dry and sandy, with some low-lying desert vegetation. The sky is a clear, bright blue. The overall scene conveys a sense of clean energy and sustainable development in a developing region.

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