



28 Feb 2024

AEEP
Energy Talks

Spotlight



Island Power: Charting Renewable Pathways for African Island States

The AEEP is supported by its Steering Group:



AEEP Energy Talks

Spotlight

ISLAND POWER: CHARTING RENEWABLE PATHWAYS FOR AFRICAN ISLAND STATES

Key findings from the AEEP Energy Talks on 28 February 2024

SUMMARY

The 13th Africa-EU Energy Partnership (AEEP) Energy Talks on 28 February 2024 delved into the theme "**Island Power: Charting Renewable Pathways for African Island States**". The discussion addressed the urgent energy challenges facing African Island States (AIS) and spotlighted for example the [African Union Commission's](#) (AUC) programme tailored to AIS energy needs, focusing on sustainable energy infrastructure, which can pave the way for a resilient and sustainable future. The AEEP Energy Talks also underlined the collaboration between Africa and Europe, exploring innovative financing solutions and drawing insights from European island states' experiences.

In his keynote speech **Mr Said Mohamed Nassur**, Deputy Secretary General at the Ministry of Energy, Comoros, underscored the necessity of advancing energy access and sustainability, stressing the importance of renewable energy transitions and resilient energy ecosystems.

The panel discussion explored various aspects, including mobility integration, grid stability, decarbonisation efforts, and the role of African frameworks like the [Continental Power System Master Plan](#) (CMP). Speakers shared initiatives and models facilitating AIS transition to net-zero electricity systems and achieving zero emissions.

In conclusion, the participants emphasised the significance of leveraging platforms for collaboration, island-to-island exchanges, stakeholder engagement, and the role of island grids in the energy transformation. They highlighted the importance of tailored strategies, innovative technologies, collaborative planning, inclusivity, and international partnerships in charting renewable pathways for AIS.

Introduction and background

The 13th AEEP Energy Talks, on 28 February 2024 on "Island Power: Charting Renewable Pathways for African Island States" addressed the pressing energy challenges that confront African Island States (AIS) such as Comoros, Mauritius, Seychelles, and others.

African Island States grapple with a unique dilemma: their disconnection from the continental energy grid necessitates heavy reliance on costly fossil fuel imports. This dependency not only strains their economies but also poses environmental and sustainability concerns. Solar, wind, bioenergy, geothermal, hydropower, and tidal and wave energy, however, offer reliable alternatives that can transform the energy landscape of AIS.

The [AEEP Energy Talks](#) explored various aspects of the energy landscape in AIS. It highlighted the role of collaboration between Africa and Europe, particularly in terms of innovative financing solutions, sharing experience, and best practices. Drawing from the experiences of European island states, participants got valuable insights into navigating sustainable energy transformations.

Opening Remarks

The AEEP Energy Talks opened with remarks from the [European Commission](#) and the [African Union Commission](#).

Dr Kamugisha Kazaura, Director Infrastructure & Energy, [African Union Commission \(AUC\)](#), welcomed participants and highlighted the significance of addressing energy challenges in African Island States. He reiterated the challenges including dependence on costly imported fossil fuels, financial sustainability issues, and lack of capital investments and institutional capacity. Dr Kazaura stressed the need for a holistic approach and advocating for local tailor-made solutions that utilise the full potential of renewable energy. He also noted the importance of focusing on renewable energy programmes and partnerships with stakeholders, particularly with the European Union. **Dr Kazaura** called for deepened collaboration to support initiatives addressing power sector challenges and emphasised the importance of technical documents, awareness creation, and financial support. In conclusion, he expressed optimism for fruitful deliberations and urged collective efforts towards achieving sustainable energy solutions in African Island States.





Mr Arnaud Demoor, Deputy Head of Unit for Climate Change and Sustainable Energy, DG INTPA, European Commission (EC), underscored Europe's [Green Deal](#) and the [Fit for 55](#) packages, aimed for carbon neutrality by 2050 and transitioning away from coal and gas towards renewables. Mr Demoor also discussed the geopolitical tensions

impacting energy markets globally, affecting energy access and causing economic repercussions. He highlighted that the challenges faced by African Island States, such as heavy reliance on fossil fuels and high electricity costs, calls for a shift towards renewables and energy efficiency. Team Europe offers support for Africa under the [Africa-Europe Green Energy Initiative](#) (AEGEI), which aims to generate 300 GW of renewable energy by 2030 and increase electricity access up to 200 million people. Mr Demoor additionally provided examples of EU supported initiatives in Cabo Verde and Madagascar, showcasing the transition towards renewables and the importance of grid stability and storage facilities. He emphasised clean cooking projects and the need for integrated regional markets to attract private sector investment. Mr Demoor concluded by expressing the EC's readiness to partner with African countries, stressing the momentum for a just energy transition and long-term mutual benefit partnerships.

Keynote Speech

Mr Said Mohamed Nassur, Deputy Secretary General at the [Ministry of Energy, Comoros](#), delivered a keynote speech focusing on the importance of advancing energy access and sustainability in African Island States (AIS). He said we are at an important moment in Africa's history, where universal energy access has transitioned from a moral obligation to a necessity encompassing social, economic, environmental, and geopolitical dimensions. Despite progress, nearly half of Africa's population still lacks electricity access and urgent action is needed to accelerate electrification efforts and ensure affordable, reliable, and sustainable energy for economic growth and competitiveness.

As a critical milestone achieved under the Comoros' chairmanship of the African Union in the past year, **Mr Nassur** highlighted the work on the [Continental Power System Master Plan](#) (CMP). Reflecting on the challenges faced by African Island States, Mr Nassur stressed the need for resilient and sustainable energy ecosystems. He emphasised the transition towards renewable energy sources like geothermal, wind, and solar as fundamental to mitigate and ensure energy

security. Despite challenges such as securing financing and adapting infrastructure, Mr Nassur called for collective action to bridge the gap between aspiration and achievement, advocating for a pathway towards energy access and resilience for all island states.



Following the keynote speeches, the webinar [showed a video from Cape Verde](#), showing what additional renewable energy capacity has meant for the people of this island nation.

Panel Discussion

A panel discussion followed with inputs from **Mr Peter N. Kinuthia**, Senior Energy Advisor at African Union Commission, **Ms Rebecca M Bisangwa**, Associate Professional Technology & Infrastructure, IRENA, **Mr Jan Cornillie**, Project Director of Clean Energy for EU Islands Secretariat and **Mr Thanos Zarogiannis**, Advisor, Deputy Minister of Environment & Energy Greece. The discussion was moderated by AEEP's Head of Secretariat, **Mr Johan van den Berg**

Island Energies: The importance of collaborative and integrated planning and inclusivity

Moderator, Mr Johan van den Berg, Head of Secretariat, [Africa-EU Energy Partnership](#) (AEEP), opened the panel discussion by asking whether insights collected from the development trajectory of European island states, particularly Greece, could be effectively transferred to African island states?

Mr Jan Cornillie, Project Director of the [Clean Energy for EU Islands Secretariat](#), introduced the [Clean Energy for EU Island initiative](#), which supports energy transition efforts across Europe's approximately 2200 islands, varying in size and characteristics. Mr Cornillie summarised three key learnings from EU islands:

- *Island-Specific Energy Strategies*: There is a need to tailor clean energy strategies to the unique development goals and characteristics of each island community. Islands are ideal testing grounds for innovative technologies like floating PV, marine energy, geothermal, and pump storage.
- *Grid is never a substitute for clean energy development*. Being connected to the mainland or having several islands connected can actually support clean energy development by allowing to exchange surplus of renewable production.
- *Storage to stabilise the island grid*: Adoption of battery storage solutions, in addition to solar, is a competitive and cost-effective approach to clean energy development on islands, because it allows to balance the variability and prolong the use solar produced electricity after sundown.

Mr Thanos Zarogiannis, [Advisor for the Deputy Minister of Environment & Energy, Greece](#), outlined his country's ambitious plans for island sustainability. He underlined that Greece aims to interconnect the majority of its inhabited islands to the mainland electricity grid by 2030. Through the [GR-Eco Islands initiative](#) Greece is spearheading a holistic approach to island decarbonisation, economic growth, and job creation, by incorporating renewable energy promotion, energy efficiency practices, circular economy initiatives, and the active participation of the islands' inhabitants. Mr Zarogiannis explained that with secured funding from European and national sources, Greece has initiated various projects, including private sector-sponsored interventions on islands like Halki. Through these efforts, Greece seeks to share its experiences and expertise with other countries that are transitioning to green and sustainable island economies.

Ms Rebecca M Bisangwa, Associate Professional Technology & Infrastructure at [IRENA](#), emphasised the importance of collaborative planning and institutional coordination for

successful renewable energy development on islands. She highlighted the need for stakeholders in the energy sector to work together, leveraging existing institutional capacity and regulatory frameworks. Ms Bisangwa underscored the significance of initiatives like [Clean Energy for EU Islands](#) for knowledge sharing and best practice



dissemination among European islands. Additionally, she stressed the need to assess available resources and identify optimal sites for renewable energy projects, considering factors such as solar, wind, and hydro potential. Ms Bisangwa also addressed the importance of demand-side management and resilience measures in island energy systems, advocating for initiatives like rooftop solar PV installations to enhance energy resilience in the face of natural disasters. She specially underscored the complexity of energy transition planning, urging the involvement of overseeing agencies to integrate diverse data sources and collaborate with stakeholders for effective strategy formulation.

Mr Peter N. Kinuthia, Senior Energy Advisor at the [African Union Commission](#), spoke of the importance of inclusivity in energy development, particularly for island states in Africa and stressed the African Union Commission's commitment to ensuring that island states are not left behind in energy development efforts. He highlighted the importance of recognising the diverse resources present among island states and applying appropriate planning principles to address their energy demands. Mr Kinuthia also noted the significance of considering factors such as land use, population projection, and industrial development plans in energy planning processes for island states all the while also remembering to acknowledge their exclusive reliance on locally available resources.

Storage, mobility, and integrated approaches

Moderator Mr Johan van den Berg invited panellists to share their thoughts on integrating various aspects of energy development, including mobility and storage, into the broader energy agenda. He raised questions about the sequencing of initiatives in transitioning towards zero carbon and encouraged participants to explore the feasibility and cost-effectiveness of alternative energy solutions.

Mr Cornillie highlighted the pressing issue of mobility in island communities, drawing from his experience in Mayotte. He stressed the importance of aligning clean energy agendas with broader development goals and local priorities, highlighting that the challenges of mobility must be addressed alongside decarbonisation efforts. He also outlined the opportunity to tackle mobility issues through various clean energy solutions, such as transitioning to electric vehicles and promoting sustainable transport options. He emphasised the need for an ambitious yet gradual approach, while sharing examples from Greece and other islands where initiatives integrating clean energy with social and economic priorities have shown promising results, also underlining the importance of tailored strategies for island communities.

Mr Kinuthia underlined the need for a simultaneous approach rather than a sequential one. He stressed that mobility must be addressed alongside other aspects of the energy transition to effectively reduce fossil fuel dependence, and that the AUC is working to ensure all of Africa – including Island States – have an integrated approach to energy. Mr Kinuthia highlighted successful examples of integrating electric mobility solutions, such as battery swaps for two and three-wheelers, which have led to increased reliability and profitability compared to fossil fuel alternatives.

AEEEP Energy Talks: Island Power: Charting Renewable Pathways for African Island States

“As the African Union Commission and of course in line with the UN Sustainable Development Goals. We do not wish to leave anyone behind.”

Peter N. Kinuthia
Senior Energy Advisor, AUC

Mr Zarogiannis gave the example of decarbonisation efforts on Astipalaia Island, highlighting an ambitious project to transition from a petrol-burning thermal plant to a hybrid power system, comprising a photovoltaic park and batteries, with the aim of achieving up to [80% renewable energy penetration](#). He also noted the significant uptake of electric vehicles (EVs) on the island, with [around 20% of the island's fleet comprising EVs](#), the highest share in the country. This comprehensive approach to decarbonisation demonstrates the viability and importance of simultaneous efforts across various sectors.

Ms Bisangwa shared insights about IRENA's work on the [Small Island Development States Lighthouses initiative](#), which facilitates technical assistance and capacity building for island states. Ms Bisangwa also discussed grid assessment studies, NDC implementation support, electrification planning, and resource assessments for rooftop solar potential. She underlined the

critical role of grids in energy transition and highlighted renewable readiness assessments, which evaluate institutional and legislative frameworks to facilitate renewable energy uptake.

Can island states lead the way?

Van den Berg's next asked the panellists whether African island states might lead the transition to net zero electricity or energy systems ahead of the mainland?

Elaborating on various initiatives and programs facilitated by the [African Union Commission](#) to aid African island states in accelerating their transition to net zero electricity systems Mr Kinuthia highlighted technical and regulatory models for mini-grids, tariff models, and interconnection terms applicable to both mainland and island states. He emphasised the [Africa Single Electricity Market](#) (AfSEM) as a regulatory framework to enable the implementation of renewable energy projects and facilitate energy trade among member states. Furthermore, Mr Kinuthia outlined the Renewable Energy for African Island States program that aims to expand renewable energy development through green climate financing options and capacity building initiatives. He underscored the potential of a continental approach to create economies of scale and enable collaborative renewable energy projects, providing island states with the opportunity to lead the way in the energy transition.

Mr Zarogiannis explained that achieving zero emissions on islands may be facilitated by their unique resource availability, such as hydropower, solar, and wind energy, coupled with storage solutions like pump storage or battery storage. He said that islands are compelled to address these challenges earlier due to the closed nature of their grids, which

presents both advantages and disadvantages. While islands must confront these issues head-on, they also face higher costs associated with infrastructure development. Mr Zarogiannis also underlined the importance of funding mechanisms, highlighting examples from Greece and other Mediterranean states in Europe, where solidarity mechanisms and funding from multilateral sources support the energy transition. He concluded that while islands face challenges, a combination of local funding and external support is necessary to facilitate the transition to renewable energy.

Mr Cornillie emphasised the significance of island nations in spearheading the energy transition. Drawing from the success stories he highlighted the holistic approach adopted in incorporating various aspects of renewable energy and grid stability. He pointed out that islands cannot afford unreliable power and must balance intermittent renewables with grid stability solutions. He noted that these lessons, are invaluable for mainland grids facing increasing renewable integration.

Ms Bisangwa also underscored the importance of finance, citing a combination of utility investments, international partnerships, and poverty-focused home solar projects in Mauritius. She concluded by suggesting that models like those implemented in island nations could be scaled and adapted by other countries, both island and non-island alike, showcasing the potential for islands to lead in the energy transition by thinking innovatively and addressing unique challenges.

Closing Remarks

To summarise, **Mr van den Berg** requested one concrete suggestion on how Africa and Europe can collaborate more closely on island state energy development.

Mr Kinuthia emphasised the importance of leveraging platforms like the Africa-EU Energy Partnership (AEEP) and the EU's flexible instruments and initiatives under the [Global Gateway strategy](#). He highlighted the need for continued involvement of the public sector alongside private sector investments in island states.

Mr Cornillie underscored the significance of island-to-island exchanges as a valuable learning tool and mentioned the ongoing efforts to facilitate exchanges among EU islands and overseas territories to share experiences and examples and inspire and inform each other. He added that islands may pave the way for new technologies that the mainland may be interested in afterwards.



In his final remark, **Mr Zarogiannis** pointed out the need to engage local stakeholders and communities in energy transition projects on islands. He highlighted the importance of political will at various levels of government, and emphasised the need for involvement from central, regional, and local authorities, as well as from residents and businesses. Drawing from experiences with Greek island projects, he noted that proactive stakeholder engagement, and education and information sharing for all affected groups can ease the transition process.

Ms Bisangwa closed by highlighting the importance of island grids in enabling the energy transition, stressing the need for collaboration with distribution system operators to ensure grid quality and facilitate the integration of renewable energy sources. She recommended engaging in discussions with island system operators as a crucial working point to advance renewable energy integration on island grids.

AEEP Energy Talk Conclusions - Island Power: Charting Renewable Pathways for African Island States

- **Tailored Clean Energy Strategies for Islands:** Panellists saw the need for customised energy strategies that align with the unique characteristics and development goals of each island community, ensuring effective clean energy transitions.
- **Innovative Technologies for Island Energy:** The role of innovative technologies such as floating PV, marine energy, and solar plus battery storage solutions in addressing energy needs on islands, showcasing their adaptability and effectiveness in island contexts.
- **Collaborative Planning and Institutional Coordination:** The importance of collaborative planning and coordination among stakeholders in the energy sector to leverage existing institutional capacity and regulatory frameworks, ensures successful renewable energy development on islands.
- **International Cooperation and Partnership:** The significance of international cooperation and partnerships between European and African actors is essential to effectively address energy challenges in island states, promoting knowledge sharing and collaboration to accelerate clean energy transitions.

About

The Africa-EU Energy Partnership (AEEP) is Africa and Europe's gateway for joint action on a green energy future. With an unmatched overview of the political processes and initiatives across both continents, the AEEP maps, monitors and convenes the actions and stakeholders that drive the African and European energy transformation. Providing a forum for political dialogue, knowledge sharing and peer connections, it enables Africa and Europe to make progress on their path to a sustainable energy future.

Tap into more information

-  africa-eu-energy-partnership.org
-  info@aEEP-secretariat.org
-  [@AfricaEUEnergy](https://twitter.com/AfricaEUEnergy)
-  [@africa-eu-energy-partnership](https://www.linkedin.com/company/africa-eu-energy-partnership)