Webinar: "Regulating Energy Storage in Africa"
May 22 2025
Concept Note

1. Background

Africa's energy landscape is undergoing a significant transformation, with a growing emphasis on renewable energy sources such as solar and wind power. These intermittent energy sources necessitate effective energy storage solutions to ensure grid stability and reliability. The rapid decline in battery costs—over 90% since 2010—has made large-scale energy storage more feasible.

Initiatives such as South Africa's Battery Energy Storage System (BESS) project, funded by the Bank, aim to support grid stability and manage peak demand. The project includes large-scale utility batteries with a daily capacity of 1,440 MWh and 60 MW of solar PV. The Bank is also funding a technical feasibility, policy and regulatory diagnostics study for the adoption and implementation of grid connected Battery Energy Storage Systems (BESS) in Nigeria**.** Additionally, during COP28, several African countries expressed interest in joining the Battery Energy Storage Systems Consortium, aiming to revolutionize Africa's energy landscape through advanced energy storage solutions. However, the regulatory frameworks governing energy storage remain underdeveloped across many African countries, creating barriers to investment and deployment.

This webinar seeks to address the key regulatory challenges and opportunities in the energy storage sector. It will explore policy frameworks, market incentives, and technical standards necessary to foster innovation and attract investment. Additionally, the session will highlight successful case studies from both African nations and international markets, offering insights into best practices for establishing a conducive regulatory environment that supports the scaling up of energy storage solutions.

2. Objectives

In collaboration with the African School of Regulation, the African Development Bank will organize a webinar on the important topic of regulating and expanding energy storage in Africa. The webinar aims to:

- Explore the current state and future prospects of energy storage technologies in Africa.
- Discuss the regulatory gaps, challenges and opportunities associated with integrating energy storage into national grids.
- Explore policy frameworks, market incentives, business models and technical standards needed to attract investments in Africa's energy storage sector.
- Highlight best practices and lessons learned from existing energy storage projects within and outside Africa.

- Facilitate a dialogue among policymakers, regulators, industry stakeholders, and investors on creating an enabling environment for energy storage solutions.

3. Key Discussion Points

- Technological Advancements: Overview of current energy storage technologies suitable for the African context, including battery storage, pumped hydro, and thermal storage.
- Regulatory Frameworks: Examination of existing policies and regulations affecting energy storage deployment, and identification of gaps that need addressing.
- Case Studies: Insights from successful energy storage projects, such as South Africa's BESS initiative and the Soma Solar Power Station in The Gambia, which plans to incorporate a battery energy storage system (BESS) in the 100 MWh to 150 MWh range.
- Market Dynamics: Understanding the economic implications, including investment opportunities, financing mechanisms, and the role of public-private partnerships.
- Capacity Building: Strategies for enhancing the technical and institutional capacities of regulatory bodies to effectively oversee and promote energy storage solutions.

4. Target Audience

- Policymakers and Regulators: Government officials and regulatory agencies involved in energy policy and infrastructure development.
- Industry Stakeholders: Energy producers, utility companies, technology providers, and project developers.
- Financial Institutions: Banks, investors, and international financial institutions interested in energy infrastructure projects.
- Academia and Researchers: Universities, research institutions, and think tanks focusing on energy systems and policy.

5. Format and Structure

Duration: 2 hours
Platform: Virtual (via Zoom)
Date: **22 May 2025, from 13:00 - 15:00 GMT**

6. Speakers

- ASR: Providing insights into regulations and market mechanisms.
- GEAPP/IEA/NREL: Offering global perspectives on energy storage trends and data
- National Energy Regulators/ National Electricity Utilities: To share national regulatory perspectives and experiences in regulating and expanding energy storage.
- Private Sector Representatives: Companies involved in energy storage technology and project implementation

7. Agenda:

Time	Topic	Speaker
13:00-13:10	- Welcome and introduction	MC – Rhoda Mshana, Energy Regulations Specialist

	- Opening statements	Mr. Wale Shonibare, Director, Energy Financial Solutions, Policy and Regulations, AfDB
13:10-13:25	**Key Presentation:** The importance of energy storage in Africa's energy transition	Prof. Ignacio Pérez-Arriaga, African School of Regulation
13:25 -13:35	**Discussant:** Reflection on Regulating Energy Storage	South Africa's Journey in Energy Storage Regulations
13:35-14:40	**Panel Discussion:** Technological and Regulatory Landscape, including the economic and market considerations of Battery Storage in Africa	**Chair:** Callixte Kambanda, Manager, Energy Policy, Regulations & Statistics, AfDB **Panelists :** o Wale Aboyade, Managing Director, Global Energy Alliance for People and Planet (GEAPP) o Engr. Shehu Abba, Executive Director – System Planning, National Independent System Operator (NISO) in Nigeria o Max Schoenfisch, Power Sector Modeller, IEA o Barbara O'Neill, Manager, National Renewable Energy Laboratory (NREL) o Mohamed Adel, Scatec
14:40-14:50	Q&A, Discussion	All
14:50-15:00	Closing Remarks	Mr. Charly Gatete, ASR

8. Expected Outcomes

- Knowledge exchange: Participants will gain insights into the critical role of energy storage in Africa's renewable energy landscape.
- Policy Recommendations: Development of actionable recommendations for policymakers to create supportive regulatory environments.
- Resource Compilation: Provision of materials and references for further reading and exploration.

9. Conclusion

As Africa continues its journey towards sustainable energy solutions, addressing the regulatory aspects of energy storage becomes imperative. This webinar aims to serve as a platform for knowledge exchange, capacity building, and the formulation of strategies to effectively integrate energy storage into Africa's energy systems.