CONCEPT NOTE

KNOWLEDGE WEBINAR

FROM FEASIBILITY TO INVESTMENT: LESSONS FROM NIGERIA'S GRID-SCALE BATTERY ENERGY STORAGE STUDY

Date: 17th November 2026 | Virtual (Zoom) |13:00-15:00 GMT (120 minutes)

Organised by the African Development Bank Group (AfDB) under the Africa Energy Sector Technical Assistance Program (AESTAP) Knowledge Series

September 2026

1. Context

The Electricity Act 2023 has reshaped Nigeria's power market, opening space for subnational markets and private investment and redefining roles across generation, transmission, distribution and regulation. The reform sits alongside persistent challenges: grid instability, limited transmission capacity, demand-supply imbalances and a growing share of variable solar and wind. These conditions call for flexible grid assets and better system management tools.

Battery Energy Storage Systems (BESS) can provide frequency regulation, voltage support, peak shaving, spinning reserve replacement, black start and renewable firming. For Nigeria, storage offers a route to a more reliable grid, deferred network investment and faster renewable integration. Several other African utilities are now weighing storage for the same reasons, including under Mission 300 compacts.

Most BESS knowledge events stay at the level of technology and global trends. What practitioners lack is the inside view of a real project: how a utility scoped a study, where the regulatory gaps were, and what sits between a feasibility study and a financed asset. This webinar is designed to fill that gap, as the first in a series of project-based knowledge sessions drawing on the Bank's technical assistance portfolio.

2. Background

Under the Africa Energy Transition Catalyst (AETC) and Africa Energy Sector Technical Assistance Program (AESTAP), the African Development Bank supported Nigeria to prepare a feasibility study for grid-scale battery energy storage. The study was implemented through the Transmission Company of Nigeria (TCN) and its AfDB Project Implementation Unit (PIU), with EMRC as technical consultant, and developed with key sector institutions including NISO, NERC and NEMSA. It covers:

- Grid technical diagnostics and system integration assessments
- BESS technology evaluation and siting analysis
- Technical specifications and grid code proposals
- Legal, regulatory and market framework development
- Institutional capacity assessment

- Investment pathways and deployment roadmaps

3. Objectives

The webinar will share practical lessons from the Nigeria BESS study so that utilities, regulators and investors elsewhere can design and finance storage projects faster. Specifically, it will:

1. Present the study's key findings, recommended deployment roadmap and priority investment pathways.
2. Unpack how the study was delivered including scoping, grid diagnostics, siting and stakeholder engagement.
3. Examine the regulatory, market and institutional reforms needed for BESS under Nigeria's post-2023 market structure.
4. Discuss bankability: revenue models, tariff design, risk allocation and the role of development finance.
5. Draw transferable lessons for other African countries planning grid-scale storage.
6. Showcase AfDB's AETC and AESTAP technical assistance as a model for building investment-ready pipelines.

4. Agenda

Time	Segment	Speaker
13:00-13:05	Welcome and framing	Moderator, Solomon Sarpong, AfDB PESR
13:05-13:15	Opening remarks: AfDB's support to Nigeria's grid modernization through AETC and AESTAP	Daniel Schroth, Director for Renewable Energy and Energy Efficiency Department, AfDB.
13:15-13:20	Nigeria's perspective: why storage, why now	MD/CEO or senior official, TCN/NISO [TBC]
13:20-13:40	Technical presentation: the Nigeria BESS Feasibility Study (findings, roadmap and investment pathways)	EMRC lead consultant
13:40-14:30	Practitioner panel: from study to investment	**Moderator:** Wale Shonibare, Director for Energy Financial Solutions, Policy and Regulation, AfDB. **Panelists:** -Engr. Dr. Musiliu Olalekan Oseni, Chairman, NERC - Engr. Dr. E.O. Ajiboye, Executive Director,

Time	Segment	Speaker
		Transmission Service Provider, TCN -Engr. Shehu Abba-Aliyu, Executive Director, System Planning, NISO -Mr. Sean Manley, Former CEO Geregu Power - Mr. Chijioke Okwuokenye, CEO Abuja Disco
14:30-14:50	Audience Q&A	Moderator with panel
14:50-15:00	Closing: key takeaways and next steps	Callixte Kambanda, Division Manager, Energy Policy, Regulation and Statistics Division, AfDB.