Concept Note and Agenda

Powering Africa's Digital Transformation: Sustainable Energy for Data Center-Led Digital Development
Africa Internet Governance Forum 2026 (AfIGF 2026)

Date and time: Wednesday, 4 Nov 2026 2:00 pm - 3:00 pm GMT (Ghana Time)

Theme: ***Powering Africa's Digital Transformation: Sustainable Energy for Data Center-Led Digital Development***

Demand for data infrastructure is growing rapidly as cloud computing, artificial intelligence, digital public services, and other data-intensive applications expand. This expansion is not only increasing the strategic importance of data centers, but also their demand for reliable electricity and supporting infrastructure. The global data center market is projected to grow from about US$242.72 billion in 2024 to over US$584.86 billion by 2032.[1] Similarly, data center electricity consumption is expected to grow from an estimated 460 TWh in 2022 to more than double to 945 TWh by 2030.[2] This growth is raising concerns about energy security and the environmental footprint of digitalization.

In Africa, rapidly growing demand for digital infrastructure is creating both opportunity and policy challenges that need to be addressed expeditiously. The continent needs additional data center capacity to support digital services while many countries continue to face electricity shortages, unreliable grids, high energy costs, and limited investment in power infrastructure. The African data center capacity is expected to reach 1.2 gigawatts (GW) by 2030, with approximately 360 MW currently active, alongside 238 MW under construction, and 656 MW planned capacity.[3] Furthermore, the continent's data center market share is projected to grow from about $3.49 billion in 2024 to nearly $6.81 billion by 2030, at a compound annual growth rate of roughly 11.8%.[4] The expansion of data centers, however, cannot be separated from Africa's electricity challenge since data centers require large amounts of continuous and reliable electricity. As of 2024, approximately 600 million people, around 47% of the region's population, have no access to electricity.[5] The scale of data center electricity demand makes this existing energy deficit particularly important for Africa and will require much closer coordination between digital and energy policy, particularly around investment in energy infrastructure, regulation, and financing. Africa therefore has an opportunity to develop its emerging data center industry differently by linking new digital capacity directly to new renewable generation, grid investment, energy storage, and energy-efficient infrastructure enabled by captive and system-integrated business models.[6]

Against this background, the United Nations Economic Commission for Africa (UNECA) is preparing a research report on *Powering Africa's Digital Transformation: Sustainable Energy for Data Center-Led Digital Development.* The proposed Africa IGF 2026 session will provide a multi-stakeholder platform to present the study and will help ensure that the report and the proposed continental guidelines reflect the priorities and practical realities of Africa's internet governance community.

[1] https://www.marketresearch.com/Fortune-Business-Insights-Pvt-Ltd-v4286/Data-Center-38140185/
[2] https://www.iea.org/reports/energy-and-ai/energy-demand-from-ai
[3] https://africadca.org/wp-content/uploads/2026/02/DataCentresInAfrica2026-EN.pdf
[4] Africa Data Center Market Landscape Report 2025-2030 https://www.globenewswire.com/
[5] State of play – Financing Electricity Access in Africa – Analysis - IEA
[6] Executive summary – Key Questions on Energy and AI – Analysis - IEA

Objectives

- Present the emerging findings of the ECA study on sustainable data center development in Africa.
- Discuss how data center expansion will affect electricity demand, energy infrastructure, and sustainable development, and identify options for reliable, affordable, and low-carbon energy supply for data centers.
- Examine the policy, regulatory, investment, business, and partnership models needed to support secure, resilient, and regionally integrated data center growth.
- Explore the socioeconomic and environmental implications of data center development, including data sovereignty, skills, employment, resource use, and digital inclusion.
- Inform practical policy recommendations, a continental energy-readiness framework, sustainable data center guidelines, and a policy roadmap for African countries and regional institutions.

Expected Outputs

- Multistakeholder feedback to strengthen the continental research report, including its scenarios, comparative findings, and policy recommendations.
- Stakeholder perspectives on energy, data sovereignty, investment, and regional cooperation that need to be reflected in the final report.
- Practical recommendations for adaptable continental guidelines on energy efficiency, environmental performance, digital security, and climate resilience, including indicators and implementation considerations.
- Identification of priority issues requiring further research, consultation, or policy dialogue.

Proposed Follow-up

Following the Africa IGF session, the key messages and stakeholder inputs will be consolidated and used to refine the research report, case studies, continental guidelines, and policy roadmap. Further consultations may be organized with governments, regional institutions, utilities, the technical community, industry, and development partners as the study moves toward validation and finalization.

Presenter and Moderator

Mactar Seck, Chief, Emerging & Frontier Technologies, Innovation & Digital Transformation Section, UNECA

Panelists

- *Dr. Kossi Amessinou* – Africa AI Policy Fellow, Expert in Information and Communication, Ministry of Economy and Finance, Benin.
- *Mr. Abraham Kuuku Sam* – Data Policy Advisor, Data Governance in Africa Initiative, GIZ–African Union (AU).
- *Ms. Liz Orembo* – International Engagement Lead, Research ICT Africa.
- *Dr. Edwell Gumbo* – Director, Entrepreneurship Development in Higher Education (EDHE) Programme, Universities South Africa.
- *Dr. Lebsework Negash* – Director, AAU STARTUPS; Assistant Professor, College of Technology and Built Environment, Addis Ababa University.
- *Dr. Jimson Olufuye* – Principal Consultant, Kontemporary Konsulting Ltd.