Role Of Digitalization in Accelerating Energy Access and Transition and Improving Energy Efficiency

at the

28th Conference of the Parties (COP28) to the United Nations Convention on Climate Change (UNFCCC)

Dubai, United Arab Emirates

Date: 04 December 2023
Venue: Africa Pavilion
Time: 11:00 -12:30

Background
Digitalisation of the African energy sector has become an urgent priority to accelerate the transformation of the energy system in both the short- and long-term. The current challenges and the need to accelerate towards low carbon energy systems means digitalisation technologies will have to play a key role in optimising energy systems, enhancing efficiencies and accelerating the integration of renewable energy systems into grid systems. Currently, 600 million people do not have access to electricity while a significant number of those with access receive unreliable and sporadic supplies of energy. The African electricity transmission and distribution system is also plagued by huge electricity losses, inefficiencies, and obsolete systems. Transmission and distribution losses in most African countries are between 20 – 45%, which poses huge challenges in expanding access. At the consumer end, there are also huge inefficiencies in metering systems, end-use applications, and tariffs collection.

Smart and digital technologies have the potential to increase efficiency along the entire energy value chain. Smart metering systems could help to enhance consumer awareness in end-use applications while also improving efficiencies in tariffs collection and monitoring demand. As Africa is currently expanding its energy infrastructure at the continental, regional and national levels, it is crucial to ensure that old and new systems are properly integrated to ensure smooth operations of the grid. Digital technologies have the potential to optimise and forecast energy production and extend the operational lifetime of assets, maintain grid stability and reliability, and reduce operations and maintenance costs.

Digital and smart technologies also have the potential to integrate intermittent renewable energy systems into the grid. For example, digital Internet of Things (IoT) technologies could help in developing smart grids that enable smooth integration of renewables into the grid. The adoption and utilisation of digital and smart technologies in Africa will depend on key drivers that could shape the policy, investment, and technology landscapes including the adoption of common standards, commitments towards achieving net-zero emissions, availability of both hard and soft infrastructure, and access to technologies.

The African Union Commission is organising a high-level side-event on the “Role of digitalisation in accelerating energy access and transition and improving energy efficiency” during the COP28 to explore strategies and create awareness on the opportunities provided by digital and smart technologies in accelerating energy access and transition in Africa. The event will be attended by high-level participants from Member States, continental and international institutions as well as the private sector.

**Objective**

The objective of this high-level event is to provide a platform for key stakeholders to exchange knowledge, experiences, best-practices and information to fast-track the deployment of smart and digital technologies in the African energy sector. The platform will also be used to identify crucial policies, strategies, and entry points of digitalisation of the African energy sector.

**Expected Outcomes**

- Identification of relevant policies to stimulate the mainstreaming of digitalisation in the Africa energy sector.
- Identification of best practices in enhancing efficiency and access in the energy value chain using digital technologies.
- Consensus on modalities for promoting and building partnerships between the public and private sector to enhance digitalisation of the energy sector.
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<td>3 mins</td>
<td>Welcome &amp; Introduction</td>
<td>Moderator: Ms. Sheila Oparaocha Director of the ENERGIA Network</td>
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| 10 mins| Opening Remarks                      | • Dr. Fatih Birol, Executive Director, IEA  
• H.E. Dr. Amani Abou-Zeid, Commissioner for Infrastructure and Energy, AUC                                                                                       |
| 35 mins| Moderated panel discussion           | Guiding questions  
• What are the potentials and opportunities currently available in the digitalization of the African energy sector?  
• How do we accelerate the adoption of digital and smart technologies in the African energy sector?  
• How can the private sector partner with African Governments to accelerate this process?  
• What are the key policy drivers to address barriers in the adoption of digitalization in the African energy sector? |
|       | Panellists                            | • H.E. Dr. Amani Abou-Zeid, Commissioner for Infrastructure and Energy, AUC  
• H.E. Dr. Kevin Kariuki, Vice President for Power, Energy, Climate and Green Growth, AfDB  
• H.E. Hon. Mamadou Sangafowa-Coulibaly, Minister of Mines, Petroleum and Energy, Cote d’Ivoire  
• Ms Aleksandra Widuch, CEO of Gulf Energy Efficiency  
• Mr. Roberto Vigotti, Secretary General RES4Africa Foundation  
• Mr. Lacina Koné, Director-General, SMART Africa  
• H.E. Dan Jørgensen, Minister for Development Cooperation and Global Climate Policy, The Kingdom of Denmark |
| 10 mins| Q & A                                 |                                                                                                                                                                                                         |
| 2 mins| Closing                               | - Moderator                                                                                                                                                                                             |