Access Partnership

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U.S- Africa Rural Electrification and Smart Metering Standards Workshop

Panel 6: Best Practices and Lessons Learned from Across Africa – Mini-grid Policies and Standards to Support Success

London | Brussels | Washington | Singapore | Abu Dhabi | Dakar | Johannesburg

Leading Countries to Fair Tech

Access Partnership has been a leading voice in tech policy globally for over two decades. We provide advice on emerging regulatory trends across regions and we drive national, regional and multilateral debates, assisting governments and industry in policy and strategy development. Our goal is to lead countries to Fair Tech through the development of regulations that support innovation and maximise the benefits of Digital Transformation for all.

Active in **200+** Jurisdictions Since 1999

Africa Success Stories

We have 20 years of experience **advising governments and industry** on tech and telecommunications policy and regulations

We are partners of regional organizations, including the **African Union and African Telecommunication Union** we use this platforms effectively to advance our clients' digital agendas

Our Africa team has a presence in **Egypt, Kenya, Senegal and South Africa**, supported by a global team of recognised policy leaders in the tech space

We are experts in tech policy, not generalists. Areas of expertise include **cybersecurity, digital trade, competition, digital payments, cross border data flows, and data trust**

A series of successful engagements in Africa:

- **CENTRAL BANK OF WEST AFRICA:** Led successful cloud advocacy campaign with Central Bank of West African States, targeting data residency regulatory blockers in the region.
- **NIGERIA:** Advised the Nigerian government on the development its Cloud Policy and Data Classification Framework.
- **SOUTH AFRICA**: Led in-country backhaul connectivity technology trial in collaboration with ICASA and Department of Communications.
- **PAN-AFRICA STRATEGY**: Assisting a telecoms tower company to establish itself as a contributor to Africa's digital transformation.
- **ALGERIA AND TUNISIA:** Supported the World Bank and the governments of Algeria and Tunisia to draft ICT regulations.
- **EGYPT**: Designed and implemented engagement strategy with senior government and regulatory stakeholders to enable national broadband solution and rural connectivity solutions.
- **ATU**: Developed African common proposal to amend an ITU treaty enabling harmonized access for innovative connectivity solutions. Managed multi-year campaign to obtain support across sub-regional organizations (ECCAS, EACO, ECOWAS, SADC).

Our Africa Offering

Intelligence

Monitoring

Legislative and Regulatory Tracking

Political and Policy Issues

Funding & Procurement Tracker

Competitor Intelligence

Collateral Production

White Papers

Policy Landscape Reports

Policy and Issue Papers

Dashboards and Information Hubs

Research

Due Diligence

Quantitative Surveys

Opinion Research

Qualitative In-depth Interviews

Strategy Development

Strategy

Policy and Regulatory Strategy Building

Scenario Planning

Response Playbook

Risk Assessment

Senior Advisory Counsel

Public Affairs

Political/Policy Analysis

Strategic Intelligence

Stakeholder & Issue Mapping

Advocacy Assets Audit

Positioning

Narrative Development

Message Development & Testing

Content/Promotion Strategy

Advocacy & Engagement

Government Relations

Introductions & Meetings

Materials Preparation

Policy Development

Drive Discussion & Dialogue

Compliance & Authorizations

Advocacy

Local, National, Regional and International

Grasstops/Grassroots Campaigns

Thought Leadership

Coalition Building

Capacity Building

Activation

Program Execution

Market Access & Compliance

Fair Tech Narrative

Renewable Energy: Policy perspectives

Renewable Energy: Policy environment

- International Renewable Energy Agency (IRENA): "With the right **policies, regulation, governance and access to financial markets, sub-Saharan Africa could meet up to 67% of its energy needs [with renewable energy] by 2030."**
- Egypt, Ethiopia, Kenya, Morocco and South Africa have shown firm commitment towards accelerated use of modern renewable energy and are leading energy transition efforts.
  For instance, more than a third of Morocco's electricity is already renewable, thanks to the Noor Quarzazate Solar Power Station- the world's largest concentrated solar power farm.
- Smaller countries including Cape Verde, Djibouti, Rwanda and Swaziland have also set ambitious renewable energy targets.
- Public policy initiatives aimed at reducing carbon emissions and promoting renewable energy:
  - Financial incentives/penalties: Carbon tax [South Africa has implemented and Cote D'Ivoire and Senegal are considering] Tax rebate/subsidy for using solar power [South Africa, Tunisia] and biofuel [Mauritius]
  - Regulatory: Framework to assist small renewable energy power producers [Tanzania, Kenya, Uganda and Ghana]

Noor Quarzazate Solar Power Station

Regulatory and Fiscal incentives: Renewable Energy

Table 6 **Support policies that have been used in Africa**

	REGULATORY POLICIES							FISCAL INCENTIVES AND PUBLIC FINANCING				
	Feed-in-tariff (incl. premium payment)	Electric utility quota obligation/RPS	Net metering	Tradable renewable energy certificate	Auctions	Heat Obligation/ Mandate	Biofuel Obligation/ Mandate	Capital subsidy, grant, or rebate	Investment or production tax credits	Reductions in sales, energy, CO_2, VAT, or other taxes	Production payment	Public investment, loans, or grants
Algeria	●				●				●			
Angola							●					●
Benin										●		
Botswana								●		●		
Burkina Faso					●				●	●	●	
Cabo Verde			●		●					●	●	
Cameroon										●		
Côte d'Ivoire										●		
Egypt			●		●			●		●		
Ethiopia							●			●		●
Gambia										●		
Ghana	●	●		●		●	●	●		●		●
Guinea										●		
Kenya	●				●	●				●	●	●
Lesotho			●		●							●
Libya										●		
Madagascar										●		
Malawi							●			●		
Mali							●			●		●
Mauritius	●				●			●				
Morocco					●							●
Mozambique							●					●
Niger										●		
Rwanda	●									●		●
Senegal		●				●				●		
South Africa		●	●		●		●	●		●		●
Sudan							●					
Tanzania	●				*		●			●		
Togo										●		
Tunisia			●					●		●		●
Uganda	●							●		●		●
Zambia							●	●		●		
Zimbabwe							●					

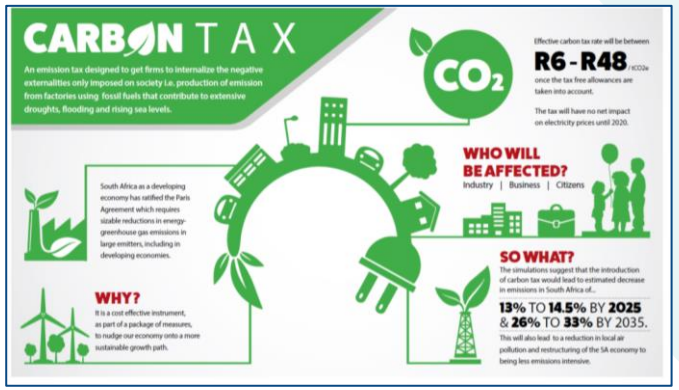
Source: adapted from REN21 (2015)

*Note: *More recently, Tanzania also announced that it will be launching an auction (ESI Africa, 2015).*

Renewable Energy: Policy environment

South Africa

- Carbon Tax Act 2019 – R6-R46 per ton of CO_2 Tax free emissions offset if carbon offsets are used.
- Income Tax Act 2019 – Deductions for energy efficiency technology
- Integrated Resource Plan 2019- Comprises wind and solar PV, backed up with flexible generation in the form of gas-to-power and battery energy storage.
- Nationally Determined Contributions Report [Submitted to COP21] >> 2025 – 17% reduction in emissions.
- Renewable Energy Independent Power Producers Procurement Programme – 77 solar and wind facilities have been created.
- South Africa National Energy Development Institute>> SA Smart Grid Initiative-



Tanzania

- National Energy Policy (2015) –reducing dependency on fossil fuels.
- Rural Energy Fund - financially supports renewable energy projects, including solar projects (solar home systems, off-grid solar PV installations.)
- East African Community - import duty and VAT exemption on certain solar products. It also means there is no payment of value added tax on the sale of solar products
- Feed-in tariff scheme for small power producers (100 kW to 10 MW) - small hydro and biomass projects [Renewable Energy Feed-In Tariffs] whilst solar and wind projects apply a bidding approach.

Renewable Energy: Political capital

Nigeria

- 2021: President Buhari signs Nigeria's Climate Change Bill into law: National Council on Climate Change
- Net Zero by 2060
- The act also sets out to establish a systematic approach for the country to identify the major climate risks and vulnerabilities facing the country and how to strengthen existing capacities to adapt to the impacts of climate change.

PRESIDENTIAL CLIMATE COMMISSION
Towards A Just Transition

South Africa

- 2020 President Ramaphosa launched the Presidential Climate Commission
- The PCC is a multi-stakeholder body established by the President of the Republic of South Africa to advise on the country's climate change response and pathways to a low-carbon climate-resilient economy and society.

Kenya

"Kenya commits to implement the adaptation action agenda; but we can only succeed if we all, as a global community, collaborate in this noble endeavor," President Kenyatta


COP26: Kenya's president says Paris climate pledges remain unfulfilled

DRC

President Félix Tshisekedi pledged to fight the deforestation of the Congo basin rainforest, the second largest in the world after the Amazon, through a series of measures.


COP26 summit: DRC president pledges to fight deforestation of the Congo basin

Renewable energy in the telecommunication sector

- International Finance Corporation (IFC) published a report titled "Investing in Sustainable Access to Communications: The Role of Telecom Energy Services Companies."
- Telecom Energy Services Companies (TESCOs) are firms whose core business is to own power assets and supply power to telecom sites.
- **Renewable energy solutions are expected to increase threefold**. Bad-grid (sites that are connected to the national grid but experience more than eight hours of electricity supply outage per day) and off-grid sites (sites not connected to the national grid) offer TESCOs the greatest opportunities to adopt renewable energy solutions. In the six regions covered in the report, the total number of bad- and off-grid sites is expected to increase by 22% to 745,000 in 2030. This increase is driven by rising mobile penetration and network densification, Universal Service Obligations to expand rural coverage, and the pace of power grid expansion lagging behind the construction of new telecom sites.
- **TESCOS can deliver high development impact to unconnected communities and regional economies**. TESCOs have a key role to play in the social and economic inclusion of unconnected communities in bad-grid and off-grid rural areas. TESCOs' investment can result in increased coverage of mobile telephony or broadband networks for underserved communities, including 3G or higher-speed mobile networks. Also, by employing greener power solutions like solar PV systems, TESCO investments can result in significant greenhouse gas savings, bringing the additional benefit of environmental sustainability.

Off-grid electricidal solutions

- A wide array of policy and regulatory measures are being adopted across Africa to accelerate the adoption of off-grid solutions.
- Measures dependent on:
  - Technology adopted (e.g. stand-alone systems or mini-grids)
  - Type of energy service delivered (e.g. lighting, productive loads)
  - Ownership structures (e.g. private sector, PPPs, NGOs)
  - Socio-economic conditions.

Lighting Africa – World Bank Programme

Lighting Africa also works with governments towards removing policy and regulatory market entry barriers in order to increase access to clean energy, and to foster a vibrant competitive market for off-grid energy products. They also work with governments to integrate modern off-grid energy products into their rural electrification programs.

Box 6 **Renewable energy-based mini-grid solutions to expand access to electricity**

Rapid deployment of mini-grids is helping to expand electricity access and stimulate socio-economic development in several countries in Africa:

- **MOROCCO** *has focused on the village-scale mini-grids, with 3 663 villages electrified with solar power, benefiting nearly 52 000 households (IRENA, 2015e).*
- **SENEGAL**, *through its rural electrification agency, has installed 35 hybrid (solar PV, battery and diesel) mini-grid systems, with plans to install 41 more (World Bank, 2014b).*
- **MALI** *is pursuing a decentralised approach to rural electrification, allowing local energy companies and initiatives (communities, women associations, NGOs) to generate electricity. Around 400 mini-grid installations are in place with a strong economic case for renewables integration. Renewable energy technologies are also providing energy services for other end-uses such as water pumping (African Development Bank Group, 2015).*

Similar developments in the mini-grid market are seen in Nigeria, Tanzania, Uganda and other African countries.

AfCFTA Approach

- Increased intra-African trade can also generally act as a catalyst for innovative finance options, strengthen financial systems to be able to support energy development projects, and incentivise investment in physical energy infrastructure by reducing investment risks.
- Under the AfCFTA, member countries are obligated to align local laws with broad regional plans. As such, unified energy sector interventions and better coordination of reform agenda could promote several initiatives, including a more sustainable and environmentally-friendly energy route for growth.
- Engendering trust among member states: The AfCFTA mandates members to publish trade related regulations and procedures; this provides greater transparency.
- While effective regional collaboration can help boost energy production and support a more efficient distribution mechanism, it is imperative that the observations from existing sub-regional energy collaborations are incorporated as lessons, and improved upon to increase the chances of meeting the targets set out in SDG 7.

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Development Finance Institutions

African Development Bank: AfDB: US$12 billion worth of investments to the sector between 2016 and 2020

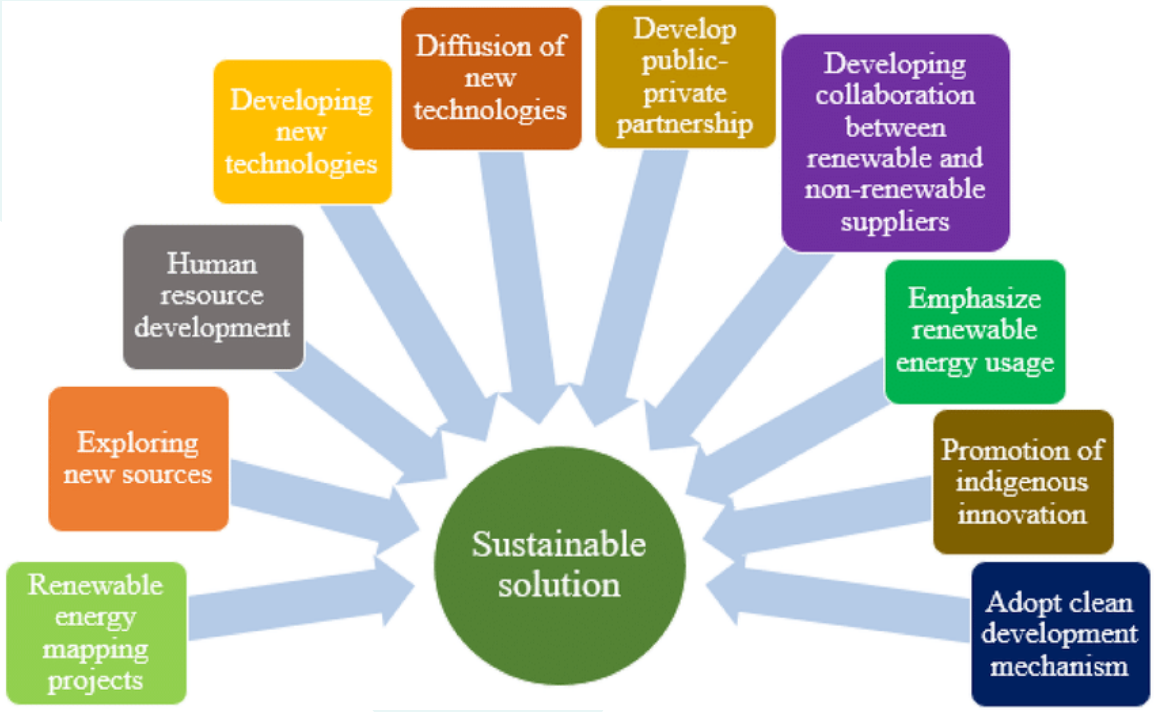
- The AfDB views the growing share of variable renewable energy sources, such as solar and wind as an opportunity to invest in more flexible energy systems to ensure that the variable renewable energy sources are integrated in an efficient and reliable manner.
- AfDB: Vital to mitigate risks to attract private investors by providing partial risk guarantees and increase the role for concessional investments such as blended debt and grant instruments. The AfDB-incubated Facility for Energy Inclusion (FEI) - The facility is an investment platform operating through two dedicated funds created to provide debt financing to off-grid, mini-grid and small-scale on-grid renewable energy projects.

World Bank - Africa Climate Business Plan includes a plan to apply US$16 billion toward renewable energy projects in Africa. Over the past decade, the World Bank has financed close to US$2.3 billion of investments in infrastructure and reforms to support the West Africa Power Pool. Lighting Africa Initiative.

The Green Climate Fund (GCF), the world's largest climate finance fund dedicated to supporting developing countries to mitigate and adapt to climate change, is extremely active in Africa. As of July 2021, it had committed US$3.29 billion to 70 approved projects in Africa, 52 of which are already being implemented. This constituted 37.2 percent of GCF's global portfolio.

Challenges to policy implementation

- Threat to incumbent industries – which wield significant power and resources.
- Competing priorities – access to infrastructure, education, etc.
- Capacity constraints - policy implementation, technical capability, M+E.
- Funding



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