Africa Single Electricity Market

– Evolution and Progress of AfSEM and CMP –

6th PIDA Week, 18 January 2021

Organizer: AUC-AUDA-/EU-EU TAF

Moderator: Mr. Simbini Tichakunda

Speakers:

• Mr. Atef Marzouk, Head of Energy Division, AUC-DIE
• Dr. Dimitris Papastefanakis, Coordinator and leading key expert in the EU TAF team
• Dr. Nijaz Dizdarevic, NKE10, Senior Power Systems Engineer
AfSEM – Consultations

1. RECs
2. Power Pools
3. Regional Regulators
4. Member States

**Northern Africa Mission**
January 2020 - Algeria
Meetings with continental stakeholders (AFREC)
Meetings with regional stakeholders (COMELEC)
Meetings with national stakeholders (Ministries, NRAs, utilities/operators) and EUDs

**Western Africa Mission**
December 2019 - Benin and Cote d’Ivoire
Meetings with continental stakeholders (AfDB, APUA)
Meetings with regional stakeholders (WAPP)
Meetings with national stakeholders (Ministries, NRAs, utilities/operators) and EUDs

**Central Africa Mission**
April 2020 – CAPP
Tele-Meeting
Meetings with regional stakeholders (CAPP)

**Southern Africa Mission**
November 2019 - Namibia and Zimbabwe
Meetings with regional stakeholders (SAPP, RERA)
Meetings with national stakeholders (Ministries, NRAs, Utilities/operators) and EUDs

**Eastern Africa Mission**
February 2020 - Ethiopia
Meetings with continental stakeholders (AUC/DIE)
Meetings with regional stakeholders (EAPP, IRB)
Meetings with national stakeholders (Ministries, NRAs, utilities/operators) and EUDs
Formulation of continental strategies, policies and actions

7 Policy Paper and Roadmap

- Based on:
  - the formulation of continental strategies, policies and actions (contained in the Working Document 1) and
  - the provision of recommendations for its development, including implementation modalities (to be contained in the Working Document 2).

- Focused on:
  - establishing the national electricity markets in the AU Member States,
  - developing the regional electricity markets in RECs composed of the national ones, and
  - integrating the regional electricity markets into the continental one.
Policy Paper and Roadmap for the AfSEM

Introduction
Opportunities and Challenges
Key Principles

One Grid for Africa
Common Rules
Institutional Setup

Next Steps
Conclusions
Opportunities and Challenges

► Most cost-efficient response for access to electricity and competitive wholesale prices with strong growth of electricity demand

► A tool to use full potential of Renewable Energy Sources, including flagship projects and production of renewable hydrogen

► Efficient tool to respond to the security of electricity supply challenges
Key Principles

- National sovereignty over energy resources
- Gender mainstreaming
- Alignment with the goals of Paris Agreement, SDGs and AfCFTA
- Harmonisation of the electricity sector legislation
One Grid for Africa

- Goals for the interconnection of the AU MS (import capacity over the installed capacity)
- 10-year Transmission Network Development Plans (updated every two years)
- System of nomination and support for the Projects of African Interests
- Engagement of civil society
Common Rules

- Regulatory convergence
- Unbundling of networks from supply and generation
- Grid codes (connectivity, operation, market rules)
- Non-discriminatory access to the grid
- Liberalisation of the wholesale electricity markets
- Protection of consumers
Institutional Setup

- **EU Technical Assistance Facility (TAF)**

**Institutional Setup Diagram**
- **AU Summit**
- **Sub-Committee on Energy of the STC-TIIET**
- **Oversight Committee of AfSEM**
  - Members:
    - AUC (Coordinator)
    - AUDA-NEPAD
    - AFREC
    - AIDB
    - UNECA
    - ARU
    - APUA
    - RECs
    - Power Pools
    - Regional Regulatory Authorities

**AfSEM Strategic Planning Coordination Unit**

- **Electricity Forum**
  - AU institutions
  - RECs institutions
  - Electricity Supply Industry
  - Private sector
  - Civil Society
  - NGOs
  - Financial Institutions
  - Cooperation Partners
  - Commercial and Industrial actors
  - Academia

- **Electricity Infrastructure Group**
  - Coordinated by AU Institution

- **Regulation and Market Operation Group**
  - Coordinated by AU Institution

- **Investments Coordination Group**
  - Coordinated by AU Institution

- **Energy Transition and Climate Mainstreaming**
  - Coordinated by AU Institution

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The EU Technical Assistance Facility (TAF) for the Sustainable Energy -ENV/2013/335-152

This project is funded by the EU and implemented by a consortium led by STANTEC
2020-2025
Preparation, Institutional Strengthening and Governance

- Establishment of institutions (Oversight Committee; Strategic Planning Coordination Unit; Working Groups)

- Strategic Planning and Modelling (inputs: AUDA, AFREC, Power Pools, APUA, Regional Regulators, AFUR, RCREEEs, etc.)

- All MS have established NRA; designated independent TSO and DSO; prepared national electricity market action plan

- System of nomination and support for the Projects of African Interest adopted

- Restructuring of electricity utilities

The EU Technical Assistance Facility (TAF) for the Sustainable Energy - ENV/2013/335-152
2026-2030
Legal and Regulatory Development

► All RECs have Power Pools as their specialised institutions

► All RECs have Regional Regulators

► Regional electricity action plans

► Regional network codes

► Regional 10-year transmission network development plans and interconnection targets

► Electricity Forum
2031-2040
Market Opening

► Continental 10-year transmission network plan and continental interconnection target

► Liberalisation of wholesale markets

► Regulatory Committee established

► Continental grid codes

► AfSEM functional
Steps for 2021: Start-Up

► Approval of the governing structure by the STC-TTIIEET

► Holding the 1st meeting of the Oversight Committee of AfSEM – Jan 2021

► Development of the Business Plan of the AfSEM Strategic Planning Coordination Unit – Jan to June 2021

► Development of 1-year Plan of the AfSEM – July to Oct 2021

► Strategic Planning and Modelling for AfSEM (inputs from the Continental Master Plan, AFREC, APUA, etc.) – Jan to Dec 2021

► Operationalising the AfSEM Strategic Planning – Sep 2021

► Holding the first meeting of the Electricity Forum – Nov 2021
## Strategic Planning, Action Plan and Guidelines for AfSEM

<table>
<thead>
<tr>
<th>No.</th>
<th>Objective</th>
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<tbody>
<tr>
<td>1</td>
<td>Undertake extensive review of the existing regional/national African electricity sector policies and plans and reports based on various scenarios developed by international organisations</td>
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<td>2</td>
<td>Update/revise the Strategy and Action Plan for a Harmonised Electricity Market in Africa along with the roadmap included in the Strategy</td>
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| 3   | Enable the AUC/DIE and relevant stakeholders to understand how the continental electricity market would evolve over the short-term (2020-2025), medium-term (2026-2030) and long-term (2031-2040)  
Design the appropriate strategies and policies for the realisation of the single and integrated electricity market in Africa |
| 4   | Assess and develop an institutional framework as well as policy, legal and regulatory frameworks for the establishment and operationalisation of the AfSEM, along with a roadmap for their implementation |
| 5   | Integrate and synchronise the CMP’s scenarios with those of the AfSEM, in close cooperation with AUDA-NEPAD, for the formulation of strategies and policies required for the realisation of the AfSEM |
### Strategic Planning, Action Plan and Guidelines for AfSEM

<table>
<thead>
<tr>
<th>Deliverable</th>
<th>Indicative timing</th>
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<tbody>
<tr>
<td><strong>Phase 1</strong></td>
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<tr>
<td>- Inception Report</td>
<td>Jan 2020 – Feb 2021</td>
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<tr>
<td>- African Electricity Sector Outlook</td>
<td>Feb 2021 – March 2021</td>
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<tr>
<td><strong>Phase 2</strong></td>
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<tr>
<td>- Updated Action Plan for the Harmonised Electricity Market in Africa</td>
<td>April 2021 – May 2021</td>
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<td><strong>Phase 3</strong></td>
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<td>- Task 1 Market Readiness for Trading</td>
<td>April 2021 – Oct 2021</td>
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<tr>
<td>- Task 2 Technical and Operational Readiness</td>
<td>April 2021 – Oct 2021</td>
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<td>- Task 3 Regulatory Readiness</td>
<td>April 2021 – Oct 2021</td>
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<td>- Task 4 Market Liberalisation and Utilities Restructuring</td>
<td>April 2021 – Oct 2021</td>
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<td>- Task 5 Institutional Strengthening and Governance</td>
<td>April 2021 – Oct 2021</td>
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<td><strong>Phase 4</strong></td>
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<tr>
<td>- Formulation of Strategic Objectives</td>
<td>Oct 2021 – Nov 2021</td>
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<tr>
<td>- Validation of the AfSEM's Strategies and Policies</td>
<td>Oct 2021 – Nov 2021</td>
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