CONTINENTAL POWER SYSTEMS MASTER PLAN

EU TAF & AUDA- NEPAD
18 Jan 2021
PIDA WEEK
AUC – EU TAF Cooperation: Harmonisation of Electricity Markets in Africa

- **2015**
  - Electricity Harmonisation - Strategy and Action Plan

- **2017**
  - Adoption of Strategy and Action Plan by the AU Heads of the States

- **2017-20**
  - Implementation: Transmission Tariff, MEPS, Mini Grids, etc

- **2020-21**
  - AUC- EU TAF Medium Term Actions for the 2019-2021:
    - AUDA – NEPAD, AFREC, APUA, AfCFTA, AFUR

- **2020-21**
  - Continental Power System (transmission-generation) Master Plan (STC Cairo 2019)

- **2020-21**
This project is funded by the EU and implemented by a consortium led by STANTEC.


**Key Energy Policy and Planning Activities:**

**Monitoring**
- Strategy and Action Plan

**Digital Platform**
- Annual Report Progress to Heads of AU MS
- Issue report on MEPs and Transition tariffs March 2021
- Policy recommendation
- Updating Action Plan

**Continental Power System (transmission – generation)**
- Master Plan

**CMP Phase 1**
- Decision in Cairo and WGM, SCM March 2020
- Baseline Scenario (Assess PPs MPs)
- Priority Projects
- Modelling CMP
- Draft ToRs for Modelling CMP

**African Single Electricity Market**

**Policy Paper and Roadmap**
- Validation Policy Paper
- Presanction of policy Pater to STC
- Governance Coordination Structure
- Strategic Planning
- List of priority activities
Review the existing masterplans developed by each of the 5 power pools in Africa;

Develop a baseline scenario. This will include detailed assessment of load forecasts and supply options and identify all priority generation and transmission projects earmarked for development.

Develop detailed terms of reference for the next phase (i.e. phase 2) of the study;
Methodology

- **Bottom-up approach**: Consultative and participatory
- **Assessment of PPs Master Plans**
- **Priority Generation and Transmission Projects**
- Assessment comparative analysis of modelling-planning tools;
- Establish cooperation with modelling partners
Consultations for all the deliverables produced:

- WGM and SCM for the approval Inception Report (March 2020)
- 1 meeting with each PP and MED-TSO - assessment of MPs (May)
- 2 meetings with AfDB and WB (July)
- 2 meetings with each modelling partners: IRENA, IEA, IAEA (July)
- 1 stakeholders meeting with all RECs, PPs, AUC, AUDE NEPAD, AfDB, Regional Regulators, and RE&EE Centers (Sept)
- 4 meetings (with each PP) for modelling and planning tool

28 meeting in total (approx. 100 hours)
Stakeholders validation of deliverables
Up to date Masterplan
• WAPP and SAPP have updated Masterplans

Masterplan Being Updated
• EAPP updating their Masterplan

Masterplans’ Status requiring more information or support
• CAPP Masterplan outdated and requested for assistance to mobilise resources to update the Masterplan
• COMELEC has no Masterplan and needs institutional strengthening to bring it a par with other power pools
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Deliverables Continental Mater Plan- Phase 1

- **Inception Report** - Data collection and review of all valid and latest power pool masterplans *(March 2020)*
- **Baseline Scenario:**
  - Baseline Load forecast and supply options,
  - Identify all priority generation and transmission projects
  - Report on the Review of Existing Masterplans *(June 2020)*
- **Identify all priority generation and transmission projects;**
  - Carry out assessment of supply/demand balance for each power pool
  - Develop models for generation and transmission *(June 2020)*
- **Modelling and Planning Studies on uniform basis** *(Sept 2020)*
- **Develop detailed ToR for Phase 2** *(Oct 2020)*
Implementation: Participatory and Collaborative Planning Approach for Developing CMP

**CMP Platform**
- One CMP +
- Five PPs MP
- Common Planning Tool
- Common Info System
- Training on the job
- Capacity Building
- Participatory Planning
  - National
  - Regional
  - Continental

**Specific Studies Support**
- CAPP Master Plan
- COMELEC Master Plan
- Hydrogen
- Battery Storage
- Hydro Reservoir Units
- PV and Wind
- RES Penetration
- Energy Transition
- CMP Funding Tools
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Recommendations:

- **Coordination & Synchronization** among the related activities to AfSEM, CMP and PIDA
- **Continuation of the Participatory - bottom up approach process** towards the development of the AfSEM and CMP
- **Continuation** of the for the Continental/Regional strategies, policies, guidelines
- **Continuity from phase 1 to phase 2** and achievement of accelerated results
- Strategic Planning and Modelling by using **common planning tool**
Thank you

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