



AFRICAN UNION

**WORLD BANK- AUC- ACPC
EGM ON ENHANCING THE CLIMATE
RESILIENCE OF AFRICA'S
INFRASTRUCTURE**

AUC PRESENTATION ON PIDA - ENERGY COMPONENT

**by Philippe NIYONGABO
Head of Energy Division,
Infrastructure & Energy Department, AUC**

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What is PIDA ?

PIDA is a programme dedicated to facilitating continental integration through improved regional infrastructure

PIDA is the result of extensive analysis, consultation and agreement with all African stakeholders as well as Development partners.

PIDA builds on the REC master plans and priorities. PIDA is a Result of extensive consultations with RECs and Member countries on priorities and next steps

PIDA is prioritized and divided into 3 phases: short term (2012-2020), medium (2020-2030) and long-term (2030-2040)

What is PIDA ?

Vision from the AUC Strategic Plan :

Build an integrated, prosperous and peaceful Africa, driven by its citizens and representing a dynamic force in the International Arena

PIDA Energy Vision: Develop efficient, reliable, cost-effective, and environmentally friendly infrastructure; and, enhance access to modern energy services by:

- (i) **Developing major regional and continental hydroelectric projects**
- (ii) **Implementing high-capacity oil refineries and oil and gas pipeline projects**
- (iii) **Developing renewable energy resources**

Continental and Regional Energy Policies

Key AUC Policy Objectives

- * **Energy security** for the African continent
- * **Regional integration of energy Markets**
- * **Low cost of energy** to help **improve access** for the majority of Africa's population
- * Promote good governance and harmonize regulations to **attract private sector investment**
- * **Reduce Greenhouse Gas (GHG) Emissions**

SOURCE: Maputo CEMA Declaration, November 5, 2010

Continental and Regional Energy Policies

Main AUC Strategic Policy Initiatives

- * Develop fully Africa's **Renewable energy potential**- especially large scale hydro but also wind, solar and geothermal;
- * Foster cooperation through **pooling of energy resources**;
- * **Diversification of energy** supply sources;
- * Strengthen and **harmonize legislation** and regulatory frameworks;
- * Establish a strategic framework for **cooperation in regional Petroleum Products** procurement, storage and distribution;

Long term prospects: Outlook 2040

- ❑ **PIDA's macro and sector outlooks to 2040 are grounded on a 6.2% annual overall rate of growth of African GDP.**
- ❑ **The main drivers of this growth are population, technology absorption and education. (Population: 1,033; 1,400; 1,770 millions respectively in 2010, 2025 and 2040).
Results show a six fold GDP increase by 2040 and a per capita income above \$10,000**

Long term prospects: Outlook 2040

- * Power Demand will be **multiplied by five by 2040** and per capita consumption by three.
- Power demand will increase from 590 TWh in 2010 to more than 3,100 TWh in 2040 corresponding to an average annual growth rate of nearly 6%.
- To keep pace, Installed Power Generation capacity must rise from present level of 125 GW to almost 700 GW in 2040.

THIS INCREASED DEMAND WILL REQUIRE ADEQUATE REGIONAL INFRASTRUCTURE THAT PIDA PROPOSES

Long term prospects: Outlook 2040

- * Africa will remain **the most hydro based continent, but the known potential is exhausted by 2030**
- * System integration can save 17% on production cost and SAPP does 50% of Africa's regional trade,
- * Energy efficiency policies can save 139 GW (16.7 %) in capacity and 634 TWh in energy (16.6%)

Long term prospects: Outlook 2040

- * Investment needs are **\$ 43 billion per annum**, of which 75% prior to 2020 are not funded
- * This capital cost will deliver more than 61 000 MW of hydro power and 16 500 km of interconnecting power lines
- * Pipelines require \$ 1,3 billion per annum
- * **Transmission is the priority** particularly prior to 2020

Long term prospects: Outlook 2040

- * If the financing gap is not filled, by 2020, **35% of the demand will not be met**
- * The cost for ensuring an access rate **>60%** is **10%** of total investment, providing access to an additional 800 M people.

PIDA: An Action plan for regional integration, Strategic Options

- **Hydro, Gas, Coal, Nuclear balance: Choice of fuel technology**
- **Dealing with the integration of Renewable Energy in the fuel mix**
- **Pace of increase in Access**
- **Prioritize PP pipelines over PP road transport**
- **Prioritize Power transmission over gas pipelines**
- **Private financing for refineries and production**

PIDA: An Action plan for regional integration

The PIDA- PAP Projects

- * **PAP comprise the 15 PIDA energy projects which need to be implemented and completed prior to 2020.**
- * **Two determining considerations for inclusion in the Priority Action Program will be:**
 - * Viable Institutional Framework for Implementation preferably for PPP;
 - * Viable financing strategy;
- * **PAP project stages are defined as follows:**
 - * S1 - early concept proposal;
 - * S2 - feasibility/needs assessment;
 - * S3 - programme/project structuring and promotion to obtain financing;
 - * S4 - implementation and operation

PIDA: An Action plan for regional integration

The PIDA- PAP Projects

- * 9 power generation projects
- * 4 power transmission corridor projects
- * 1 petroleum product pipeline project
- * 1 gas pipeline project

Total cost: USD 40 bn

The PIDA Projects Prioritization Process

* *The Weighting of the Prioritization Criteria*

- * Part of the continental Least Cost Plan: 25%
- * Readiness for implementation: 20%
- * Contribution to Regional Integration: 20%
- * Environmental impact 15%
- * Socio-economic impact: 10%
- * Synergy with other infrastructure sectors: 10%

➤ **The minimum rating to qualify was set as 7/10**

The Prioritization Process

* ***Environmental impact*** (level of GHG emissions)

- Hydro and Renewable (wind, nuclear, geothermal, CSP) projects
10 points
- Gas fired plants
5 points
- Diesel
3 points
- Coal
0 points

The PIDA Projects Prioritization Process

Socio-economic impact Impact caused by the project in terms of persons displaced, disruption of society, loss of living resources by communities.

- * Hydro project with large reservoir: 0 points
- * Hydro project with small reservoir 2 points
- * Transmission line/pipeline following new alignment 2 points
- * Thermal plant 5 points
- * Transmission line following existing route: 7 points
- * Wind farm or reinforcement of existing transmission line 10 points

IMPLEMENTING PIDA PAP

Most Advanced PIDA PAP Energy Projects:

- Grand Ethiopian Renaissance Dam
- Kaleta Hydroelectric Dam (Guinea)
- North–South Power Transmission Corridor (Ethiopia-Kenya line part under implementation)
- RUZIZI III Hydropower Project and
- West African Power Pool (WAPP), Cote d'Ivoire - Liberia - Sierra Leone - Guinea (CLSG) Interconnection Project

CONCLUSION - PIDA NEXT STEPS

- **Support targeted capacity building for NPCA, RECs**
- **Support to projects preparation**
- **Prepare all projects for implementation, including private sector participation and Implement quick wins in the PAP;**
- **Policy harmonization**
- **Monitor progress and report on delivery**

CONCLUSION - PIDA NEXT STEPS

* Mobilizing Resources for following Quick Wins:

6 PIDA Energy priority projects :

<u>Name of project</u>	<u>Funding gap (\$US)</u>
1. RUZIZI III Hydropower	200 million
2. Sambangalou Dam	265 million
3. Zambia-Tanzania-Kenya Power Line	1 billion
4. North Africa Power Corridor	1.2 billion
5. Batoka Gorge Hydropower	4 billion
6. Nigeria-Algeria Gas Pipeline	20 billion

CONCLUSION

- * Acknowledging PIDA as the African-owned and African-led programme**
- * Tackling soft governance issues necessary for true regional integration - harmonization, facilitation, monitoring, and evaluation**
- * Keeping strong political commitment**
- * Advocating for strong partnerships (Donors, PPP...)**



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