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AFRICA ELECTRICITY SYMPOSIUM 2025

AFRICA ELECTRICITY SYMPOSIUM

ERA
ELECTRICITY REGULATORY AUTHORITY

THE LEGAL AND INSTITUTIONAL READINESS OF UGANDA FOR THE EASTERN AFRICA POWER POOL VIZ AVIZ EXISTING REGIONAL POWER PROTOCOLS

MINISTRY OF ENERGY AND MINERAL DEVELOPMENT
THE REPUBLIC OF UGANDA

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Introduction

- Linkage between energy supply and development
- Regional power pool as one of the strategic objectives to foster energy corporation in Africa.
- A "*Power Pool" is* a coordinated arrangement among two or more electricity utilities or countries that enables them to plan and operate their power systems collectively .
- Five regional power pools on the African continent (EAPP, SAPP , WAPP and CAPP
- Focus for today is the EAPP

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Introduction

- Regional Power Trade can be simplified as one country's surplus plugging into another country's deficit but its not as simple as that
- EA countries have been engaging in power trade through Bilateral agreements even before idea of a power pool was concieved-Kenya and Uganda since 1970
- EAPP was established in 2005 but no power trade has happened through the pool since then
- Plan to launch the EAPP was expected early this year extended to August the 2025- (through the Day Ahead Market)
- The paper title is the Legal and institutional readiness of Uganda for the Eastern Africa power pool viz aviz existing Regional power protocols

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EAPP Background and Establishment

- The Eastern Africa Power Pool (EAPP) was formally established in 2005

- In 2006, EAPP was integrated into the institutional framework of the Common Market for Eastern and Southern Africa (COMESA

The EAPP governance structure;
1. The Council of Ministers (CoM)
2.the Steering Committee (SC)
3.Independent Regulatory Board (IRB)
4.Organizational Committees (OC)
5.The General Secretariat (GS

The current empowering legal instruments of EAPP are the Inter-governmental Memorandum of Understanding and the Inter–utility Memorandum of Understanding agreements between the member countries.

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Problem Statement

- EA Current power trade represents only 0.4% of regional demand.
- The delay in implentation of the EAPP
- EAPP since 2005 has been good for conferences and papers
- The Market rules recognise the Bilateral agreements and give them precendence
- Limited clarity on the level of EA Integration
- Analysis considers the three levels of integration-

  Business as Usual Benchmark, used as a comparator for Shallow and Tight levels of integration

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Problem Statement

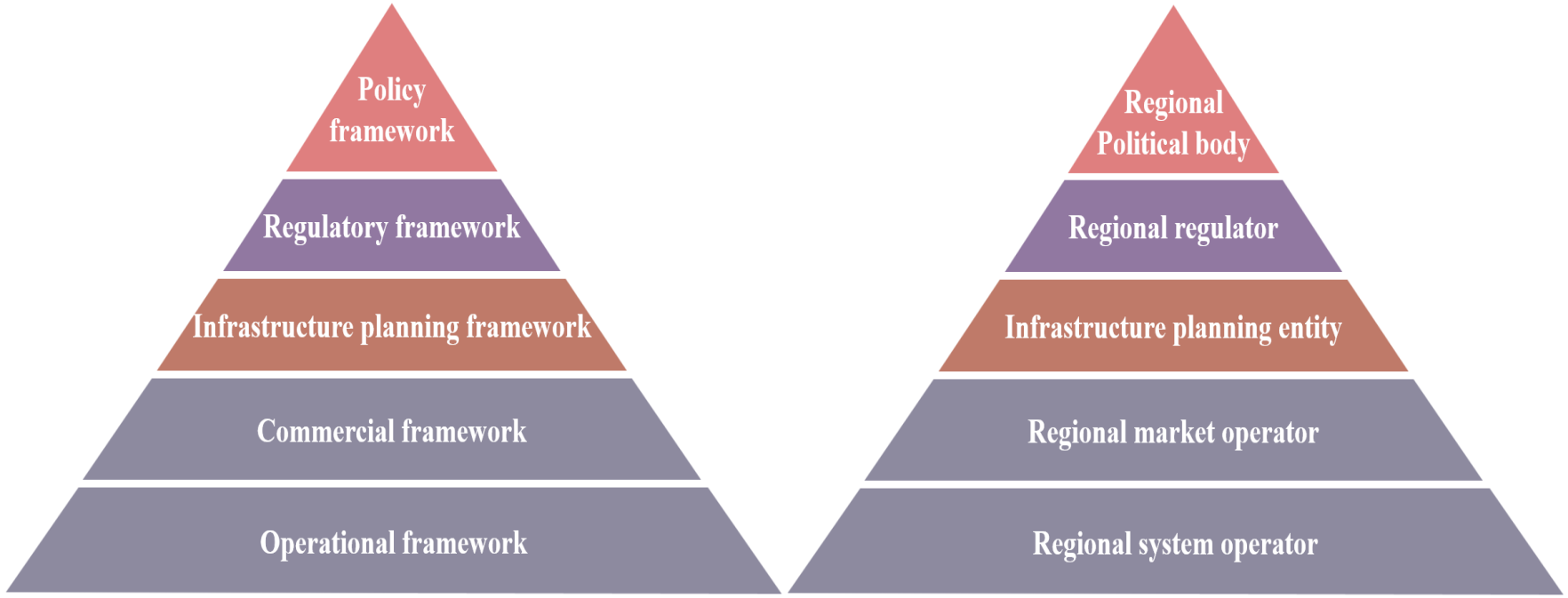
- "Shallow" level of integration.

❖ $7.6 billion can be gained from from EAPP potential

•"Tight" level of integration that requires generation and (new) interconnection plans
$18.6 billion optimized

- Without being specific EAPP is aiming for a tighter level of integration for power trade and thus has faced significant challenges in implementing the power pool

Problem statement contd



regional trade Frameworks, on the left, to regional institutions, on the right.

Readiness of the EAPP tested against status of the above frameworks and institutions

Problem statement contd

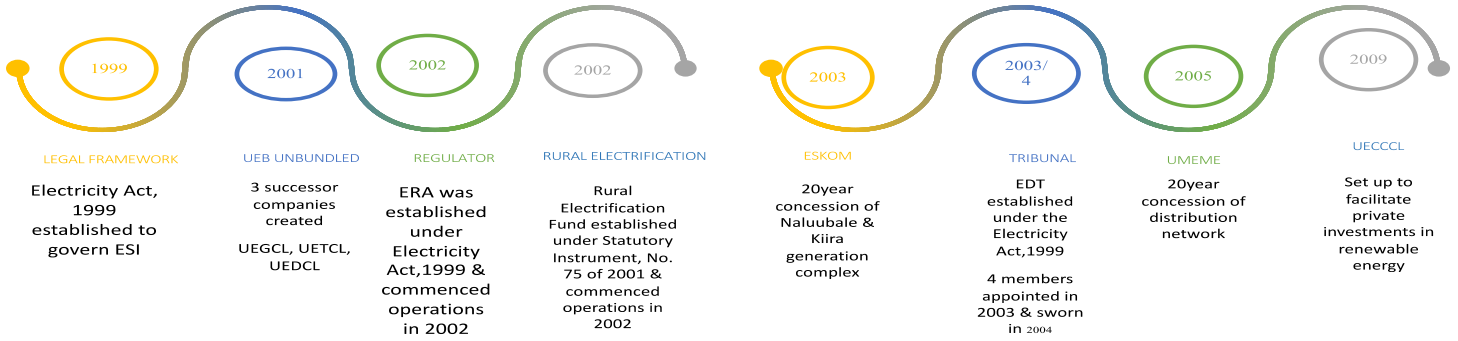
SN	Frameworks	EAPP Status
1	Policy Framework	In place
2	Regulatory Framework	In place through various market and trade Agreements
3	Infrastructure Framework	Not yet in place
4	Commercial Framework	Established Market rules were completed in 2022
5	Operational Framework	Established

SN	Institutions	EAPP Status
1	Regional Political Body	COM in place
2	Regional Regulator	IRB hosted in Kampala
3	Infrastructure Planning Authority	Not in Place
4	Regional Market Operator	Not yet established Host country not yet determined
5	Regional System Operator	Not yet established

Uganda's Legal and Institutional Framework for Power Trade

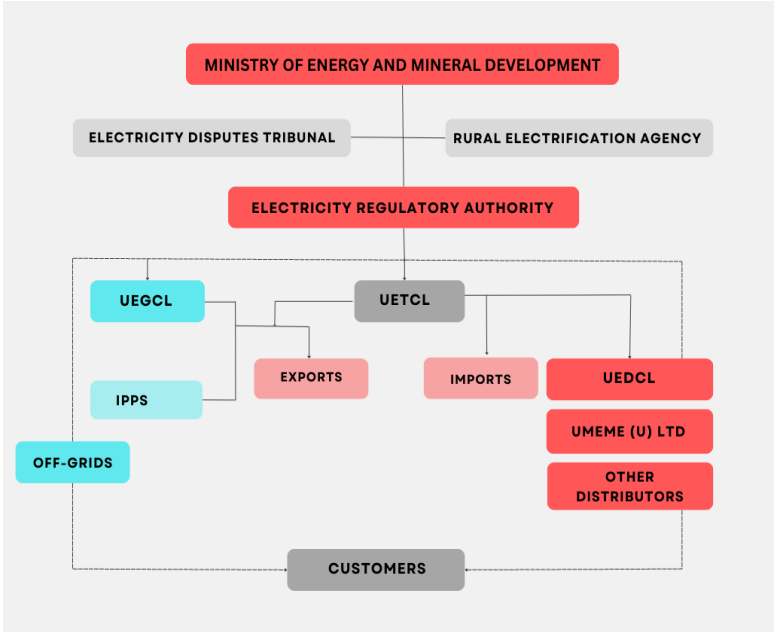
- First Generation Reforms converted ESI from vertically integrated to unbundled and increased private sector participation in the sector
- Second Generation Reforms- from a private led sector to a public led

ESI First Generation Reforms



Uganda's Legal and Institutional Framework for Power Trade

Market structure before the Reforms



ESI Ecosystem

- **Key Responsibilities**

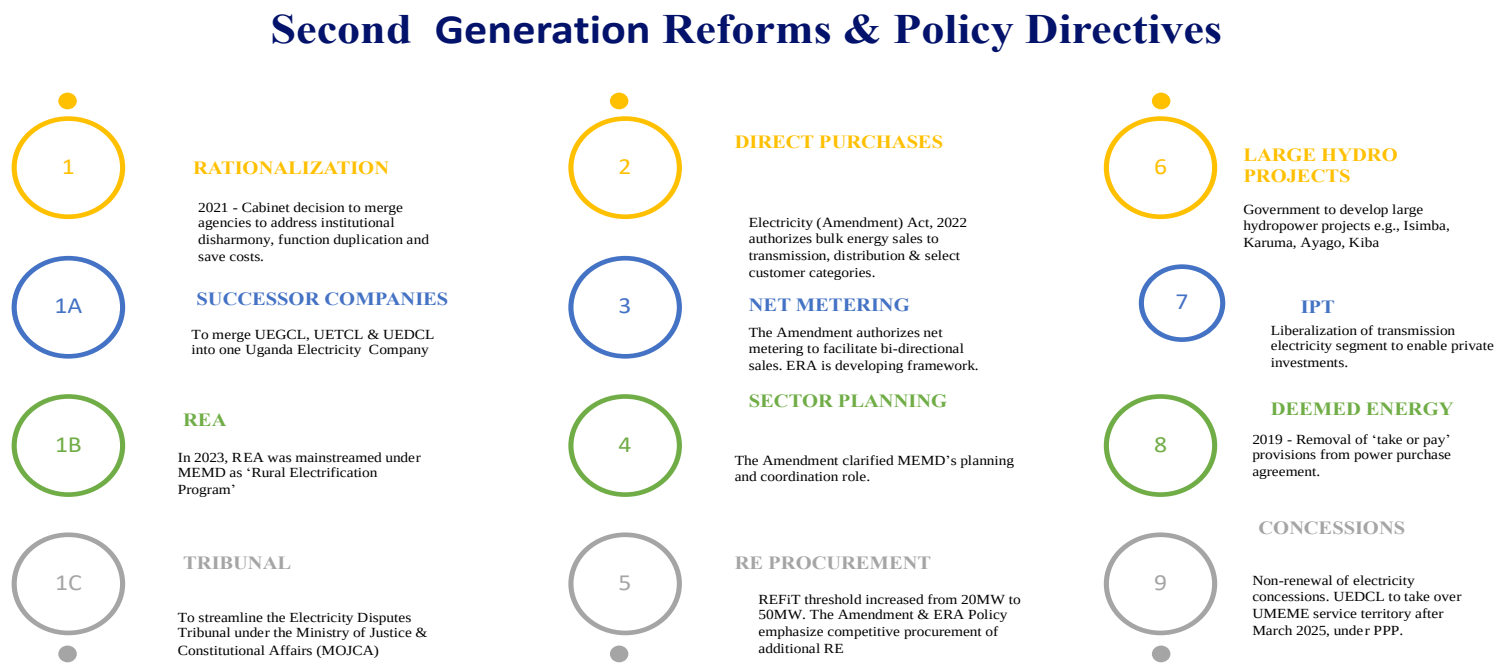
- **MEMD** – Policy
- **ERA** – Regulatory oversight
- **REA** – Rural Electrification
- **EDT** – Disputes Resolution
- **UETCL** – Bulk Supplier/System Operator

- Regulatory Framework
- -Electricity Act 1999 as amended in 2022
- The Electricity (Primary Grid Code) Regulations. 2003
- Electricity (Isolated Grid Code) Regulations 2020
- Established ERA

- Sector Regulator

- Licences generation, distribution, transmission and sale of electricity

Uganda's Legal and Institutional Framework for Power Trade



Uganda's second-generation electricity reforms, particularly the transition of distribution from private concessions to public management are relevant to regional power trade by potentially improving efficiency, reliability, and investment attractiveness. These will enhance increase power exports and regional integration.

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Challenges to Regional Power Trade in East Africa

- Inadequate transmission infrastructure
- Varying regulatory frameworks
- Financial constraints
- Lack of political will
- Delayed Implementation

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Opportunities

- Expanding market size
- Energy security and reliability
- Promotes Competition
- Improved electricity reserve margins

Recommendations

- Legal and Regulatory Harmonization
- Infrastructure Financing and Development
- Capacity Building and Institutional Strengthening
- Multilateral Coordination and Support Frameworks

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Main Conclusions

- Significant strides have been taken by Uganda and other members of the EAPP in preparation for regional power trade through the pool
- EAPP still faces substantial readiness gaps that require urgent attention.
- Addressing these gaps is essential to ensure Uganda's meaningful contribution to the regional power market.
- This paper has confirmed that national prioritization, cross-border collaboration, and targeted international support are indispensable for unlocking the EAPP's potential to deliver affordable, reliable, and sustainable energy across Eastern Africa.

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