

# **POLICY BRIEF** Regulatory Oversight



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A Framework for Regulatory Oversight of the Regional Energy Market in Eastern Africa, Southern Africa, and Indian Ocean Region

# Background

The Eastern Africa-Southern-Africa-Indian Ocean (EA-SA-IO) region continues to experience energy challenges, in spite of the fact that it is endowed with a rich array of energy resources. It is envisaged that expansion of cross-border power trade will enhance energy security, diversify energy sources, and drive general economic growth in the region.

The development of a vibrant regional energy market in the EA-SA-IO region would however require some minimum level of harmonization of the policy, regulatory, and institutional structures at both national and regional level.

This brief contains details of a study conducted to develop a framework for regulatory oversight of the regional energy market, that, when adopted will address the issue of regulatory harmonization. The objective of the brief is to help appraise energy stakeholders in the EA-SA-IO region on the recommendations of the study.

# Key Trends in Existing Policy, Regulatory, and Institutional Arrangements

## Market structure

- Most countries have some form of primary legislation in place that defines the basic structure of the electricity sector and key roles and responsibilities within it
- The vertically integrated structure with a dominant state-owned utility that acts as the "Single Buyer" is prominent in the region. This model, though relatively successful in simple nascent markets, could be restrictive and hamper transparency which is essential to attracting investments in the sector
- Some countries such as Kenya and Mauritius are planning to ring-fence the TSO function within the industry, in order to give a degree of separation of system operation from other power sector activities. This would be a positive step towards creating a "level playing field" for existing generators and new entrant IPPs to participate in the electricity market.
- Import and export of power in the region is currently led by the integrated power utilities.
- The drive of the two regional markets, EAPP and SAPP has been on allowing IPPs and large



power users to trade internationally.

- Namibia's Modified-Single-Buyer system allows this to some degree as is the case in a number of other jurisdictions e.g., Zambia where primary legislation permits the existence and licensing of private entities empowered to import and export electricity.
- SAPP recently changed its membership categories to make it easier for IPPs to become SAPP members. That is not the case in the EAPP market.

#### **Regulatory arrangements**

- With the exception of six countries, all countries have some form of National Regulatory Authorities (NRAs) that govern their sectors.
- Comoros, Djibouti, Democratic Republic of Congo (DRC), Eritrea, Libya, Somalia, and South Sudan are the only countries without NRAs.
- In 2020, Djibouti promulgated a law for the establishment of a national regulatory authority and is in the processing of setting it up.
- At the regional level, the EAPP established the Independent Regulatory Board (IRB) to regulate the market even though it currently has no capacity to carry out its mandate.
- The SAPP on the other hand is in the process of establishing a regulator for the market, possibly through transformation of the Regional Energy Regulators Association of Southern Africa (RERA).
- Separately, the region has three Regional Regulatory Associations (RRAs) whose membership is drawn from NRAs and whose primary function is networking, capacitation, and information sharing.
- The three are the Energy Regulators Association of East Africa (EREA), the Regional Association of Energy Regulators of Eastern and Southern Africa (RAERESA), and RERA.

# **Obstacles to Regulatory Oversight of the Regional Electricity Market**

### General

There are unique characteristics of the region that required consideration when developing the framework.

- A wide regional scope covering 29 African countries with different legal and regulatory frameworks, stretching from South Africa to Tunisia and comprising four island states.
- Four different official languages English, Arabic, French, and Portuguese.
- Varying levels of regional electricity system integration characterized by a functioning SAPP market and a non-operational EAPP market.
- An existing regional regulatory authority, the IRB for the EAPP.

- Various other organisations already dealing with regional regulatory matters including AFUR, EREA, RAERESA, and RERA.
- Different regional governmental organisations with overlapping memberships, and different regional scopes and mandates (EAC, COMESA, IOC, and SADC).

## Licensing

- Different countries have varying conditions and procedures for licensing market participants.
- An integrated regional market would require participants to apply for licences that align with common standards to ensure that participants adhere to common technical conditions for system safety, reliability and efficiency.
- Common standards would give developers confidence that they would be able to participate from any country within the regional market.
- The Licences required will include the following.
  - 1. Generation2. Transmission3. Distribution4. Interconnection
  - 5. System operation, and 6. Import and export
- Harmonised licence guidelines will level the playing field for new projects joining the market.
- Investors will only be required to master a set of guidelines to understand the entire region thus promoting swift repeat investments.

## Network regulations

- An integrated EAPP-SAPP regional market would require regulations to be consistent across Southern and Eastern Africa and presented in a standardised format or as templates that can be utilised by the NRAs in each country.
- This will ensure that base requirements are defined transparently, eliminating the need for market participants, regulators, and utilities to develop and negotiating terms.
- The overall structure of the regulations that are required to support the electricity sector both nationally and regionally is shown in the figure below.



- A number of priority areas were identified for harmonisation:
- Grid Code documents A single Regional Grid Code framework for the EA-SA region, and clear guidelines for provisions that should be included in national Grid Codes.
- Technical standards many of these are incorporated in the Grid Codes themselves, but where standalone documents are cross-referenced by these codes, the standards incorporated in them should be harmonised as far as possible.
- Commercial agreements agreements required to secure third-party access to the transmission networks in the region require harmonisation to ensure that obligations on market participants are aligned.
- Network charging rules harmonization of these is core to the provision of transparent and non-discriminatory access to the electricity markets. The harmonized rules will seek to be cost-reflective, stable and non-discriminatory.

#### Market rules

 Participants who are licensed and are operating as per network regulations should be permitted to trade in the regional markets subject to qualifying for membership under the relevant market rules.



• An integrated EAPP-SAPP market would require harmonized market access rules and regulations.

## **Recommendations for Regulatory Oversight of the Regional Electricity Market**

## Institutional arrangement

 The recommended institutional structure proposes grouping the countries into three different regulatory regions – EAPP, SAPP, and the Indian Ocean region (IOC).

- The structure builds upon the existing regulatory frameworks.
- Establish a new regional regulatory authority for the SAPP market that builds on the knowledge and capacity of RERA.
- Amend the existing IRB mandate in order to establish it as fully independent regional regulatory authority for the EAPP market.
- Establish a regional regulatory association denominated the Indian Ocean Club of Regulators as a regulatory advisory body for the island states of the Indian Ocean region.
- Establish a Centre of Excellence on Regulation to support the newly created regulatory framework.
- The recommended regional regulatory institutional structure is illustrated below.



#### Role of regional and national regulatory authorities

 Regional regulatory authorities will only exercise such responsibilities that have been attributed to them by the relevant enabling legal documents and shall be restricted to the operation of the regional markets.

- In line with the principle of subsidiarity, any other responsibility will remain the exclusive responsibility of the NRAs.
- A summary of the subdivision of roles is provided below.
- National regulatory authorities will help enforce regional regulatory decisions by the regional regulators besides transposing regional regulatory rules, guidelines and decisions into national regulatory rules and guidelines.

## Harmonization of market regulations

- Harmonized regulations need to be developed covering the following:
  - Licensing arrangements
  - · Market surveillance
  - · Transmission contracts and agreements
  - Technical standards, including the development of a Regional Grid Code; and
  - Regional planning regulations, to increase regional interconnection capacity.

## Transmission use-of-system charging framework

- A standardised methodology for wheeling charges needs to be developed for use across the region.
- It is recommended that a point-to-point MW-km transmission pricing method be adopted to provide a basis for recovering the capital, operation, and maintenance costs associated with the use of interconnected network assets.

## Environmental considerations

 In order to promote environmental sustainability in the power sector, a standard approach and methodology for conducting Strategic Environmental Assessment (SEA) in the development of national Integrated Resource Plans needs to be developed.

## **Roadmap for Implementation**

• A Short-term phase over 1 - 3 years (2021 – 2023) is envisioned when the following actions

can be taken:

- Establish national regulatory authorities in the six countries currently without them
- Set up and operationalize regional regulatory authorities for the EAPP and SAPP markets.
- Operationalize the Club of Regulators for the Indian Ocean region.
- Create a Regional Centre of Excellence that can act as a focal point for the development of training and capacity building activities in the region.
- Develop a Regional Grid Code framework to govern operation of the coupled EAPP and SAPP markets.
- · Develop standard licensing templates
- A medium-term phase is proposed to prioritise the following:
  - Development and adoption of a transmission use-of-system charging methodology
  - Implement licences and agreements that are based on the standardised models that would have been developed earlier.
- The long-term phase has been proposed to focus on fully integrating the EAPP and SAPP markets through establishment of a single regulatory authority for the coupled market by gradually merging the two regulatory regions and institutions in order to maximise the coherence and effectiveness of the regional regulatory institutional framework for the region.

Long-term institutional structure for the market



# Conclusion

The above measures are required to be implemented in parallel with the wider initiatives being pursued across Eastern and Southern Africa to integrate the EAPP and SAPP markets. The **benefits of market integration** have been widely discussed in other studies, by unlocking the huge potential for energy resource sharing, decarbonisation of the electricity sector and greater access to electricity at lower cost for end consumers. For this to be possible, it will require a strong platform of regulation both to protect consumers' interests and to create an environment in which new investors will feel confident to come forward and participate in the energy market. If sufficient buy-in can be obtained from regulators, government ministries, utilities, investors and other stakeholders to the market reforms that are being proposed, and to the recommendations on regulatory harmonisation contained in this study, these wider benefits of integrated energy trading will become achievable.





