



RERA INITIATIVES ON STANDARDS & CHALLENGES

By

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Presentation Outline

- ❑ **About RERA**
- ❑ **RERA initiatives**
- ❑ **RERA challenges**
- ❑ **Role of regulators**
- ❑ **Concluding Remarks**

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- ❑ Role of regulators
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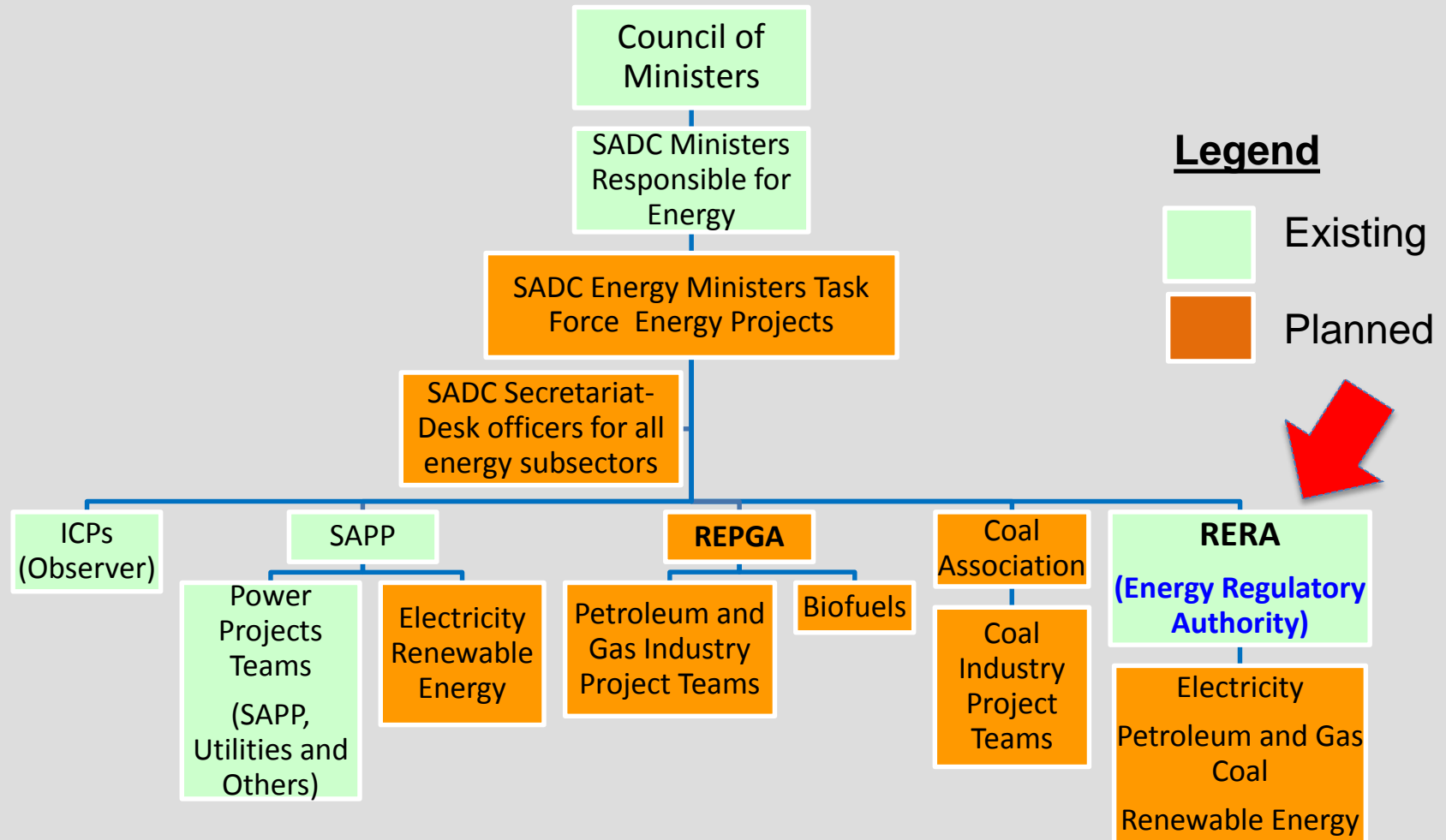
About RERA

The Regional Electricity Regulators Association of Southern Africa (RERA) was established in 2002 with the following objectives:

1. Capacity Building & Information Sharing
2. Facilitation of ESI Policy, Legislation & Regulations
3. Regional Regulation Cooperation

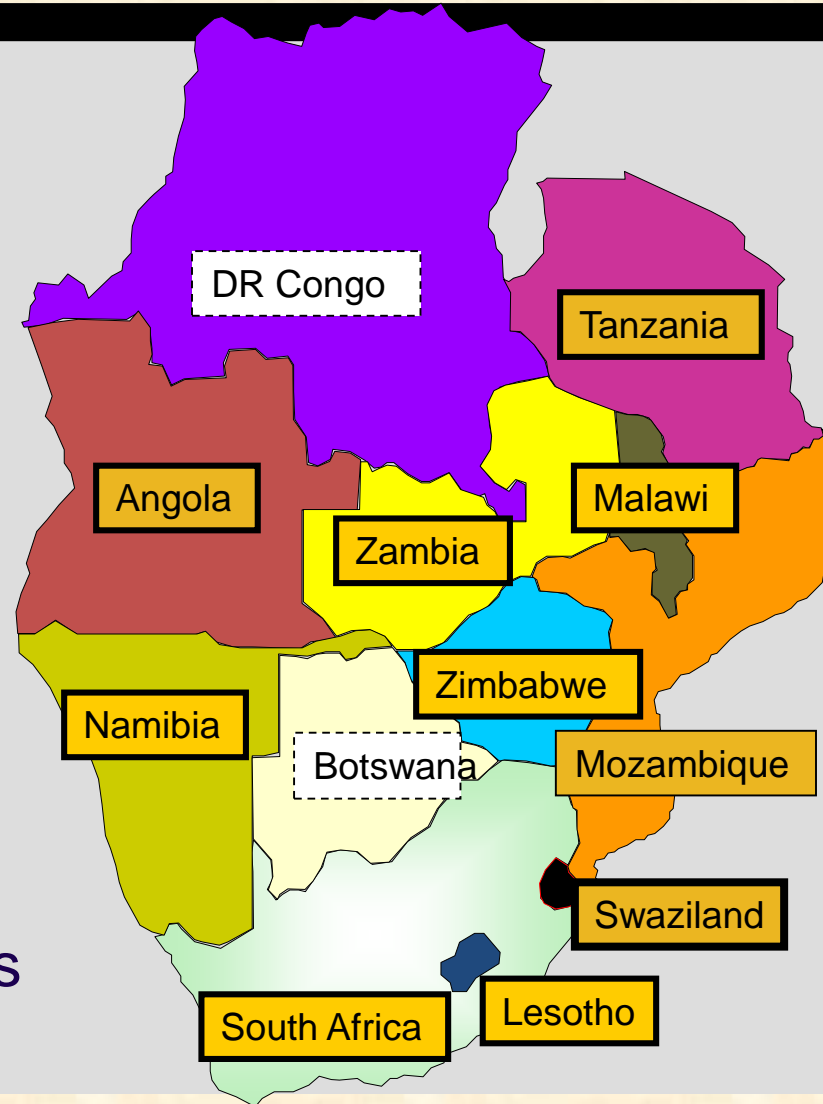
RERA's mission is to facilitate the harmonization of regulatory policies, legislation, standards and practices and to be a platform for effective cooperation among energy regulators within the SADC region

SADC Institutional framework



RERA Membership

- **12/15** SADC countries have energy/electricity regulators – **80%**
- **10/12** are Members of RERA
- **ORE of Madagascar & Energy Commission of Seychelles** are not yet Members of RERA
- **3** are electricity regulators, **6** are energy regulators & **3** are multi-sector (energy/water) regulators
- Remaining **3** countries (**Botswana, the DRC & Mauritius**) are at various sector reform stages



RERA membership (*cont.*)

- **Angola** - Institute for Electricity and Water Services Regulation (IRSEA)
- **Lesotho** - Lesotho Electricity and Water Authority (LEWA)
- **Malawi** - Malawi Energy Regulatory Authority (MERA)
- **Mozambique** - National Electricity Advisory Council (CNELEC)
- **Namibia** - Electricity Control Board (ECB)
- **South Africa** - National Energy Regulator of South Africa (NERSA)
- **Swaziland** – Swaziland Energy Regulatory Authority (SERA)
- **Tanzania** - Energy & Water Utilities Regulatory Authority (EWURA)
- **Zambia** - Energy Regulation Board (ERB)
- **Zimbabwe** - Zimbabwe Energy Regulatory Authority (ZERA)

RERA Initiatives

- RERA facilitated a Quality of Supply workshop in Lilongwe, Malawi in June 2013.
 - PIESA Power Quality and Supply Standard adopted
- SADC mini-grid framework
 - Technology Choice & Technical Regulation
- Regulatory compliance and enforcement frameworks
- Development of harmonized technical norms, codes, standards and practices

RERA Initiatives (*contd..*)

		Lesotho	Malawi	Mozambique	Namibia	South Africa	Swaziland	Tanzania	Zambia	Zimbabwe
Grid Code Components	Governance Code	✓	✓	UD	✓	✓	✓	✓	✓	✓
	Distribution Management Code			✓	✓	✓			UD	✓
	Network/Connection Code	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Protection Code	✓	✓	✓	✓	✓			✓	✓
	Metering Code	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Operations Code	✓	✓	✓	✓	✓	✓		✓	✓
	Planning Code	✓	✓	UD	✓	✓			✓	✓
	Performance Standards Code	✓		UD	✓	✓			✓	✓
	Market Code			UD	✓	✓	✓		UD	UD
	Information Exchange Code	✓	✓	UD	✓	✓	✓	✓	✓	✓
	Project Appraisal Framework			UD	✓					✓
	Generation Code	✓	✓	UD	✓	✓				✓
	Dispatch Rules	✓		UD	✓	UD		✓	✓	✓
	Renewable Grid Code	✓		UD	✓	✓	✓	✓		UD
	Tariff Code			UD	✓	✓		✓	UD	✓
	Safety Code	✓	✓	UD	✓	✓			✓	✓
	Off Grid Practices and Technology	✓		UD	✓	✓		✓	✓	UD
	Wind Code	✓		UD	✓	✓				UD

RERA Initiatives (*contd..*)

		Lesotho	Malawi	Mozambique	Namibia	South Africa	Swaziland	Tanzania	Zambia	Zimbabwe
Quality of Service Parameters	Service Delivery									
	Quotation Days	10								10
	Connection Days	30								30
	Waiting list due to system constraints	10								10
	Telephone response time	✓	D apvd		✓	✓	✓	✓	✓	✓
	Complaints/Requests/Enquiries received	✓	D apvd	✓	✓	✓	✓	✓	✓	✓
	Tariff meters testing (freq.)	✓			✓	✓	✓	✓	✓	✓
	Tariff meters reading (freq.)	✓			✓	✓	✓	✓	✓	✓
	Bill completion and delivery	✓			✓	✓	✓	✓	✓	✓
	Meter replacement (max. error)	✓	D apvd		✓	✓		✓	✓	✓
	Credit metering	✓			✓	✓	✓	✓	✓	✓
	Prepayment metering	✓			✓	✓	✓	✓	✓	✓
	Service disconnection notice	✓	✓		✓	✓	✓	✓	✓	✓
	Service reconnection (min. days) after penalty	✓	✓		✓	✓	✓	✓	✓	✓
	Communication	✓		✓	✓	✓		✓	✓	✓
Customer education	✓		✓	✓	✓	✓	✓	✓	✓	
Service reconnection after fault	✓	✓		✓	✓	✓	✓	✓	✓	

RERA Initiatives (*contd..*)

		Lesotho	Malawi	Mozambique	Namibia	South Africa	Swaziland	Tanzania	Zambia	Zimbabwe
Quality of Supply Parameters (Transmission)	Frequency deviations	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Voltage regulation	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Voltage imbalance and unbalance	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Voltage dips	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Voltage Total harmonic distortion (VHD)	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Voltage flicker distortion (VFD)	✓	✓	✓	✓	✓	✓	✓		✓
	Inter-utility interfaces	✓		✓	✓	✓	✓	✓	✓	✓
	Voltage swells	✓	✓	✓	✓	✓	✓	✓		✓
	Voltage transients	✓	✓	✓	✓	✓	✓	✓	✓	✓
Quality of Supply Parameters (Distribution)	Frequency deviations	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Voltage regulation	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Voltage imbalance	✓	✓	✓	✓	✓		✓	✓	✓
	Voltage unbalance	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Current harmonic distortion (CHD)	✓		✓	✓	✓		✓		✓
	Voltage harmonic distortion (VHD)	✓		✓	✓	✓	✓	✓	✓	✓
	Voltage flicker distortion (VFD)	✓		✓	✓	✓	✓	✓		✓
	Inter-utility interfaces	✓			✓			✓	✓	✓

RERA Initiatives (*contd..*)

		Lesotho	Malawi	Mozambique	Namibia	South Africa	Swaziland	Tanzania	Zambia	Zimbabwe
Energy Efficiency Practices/Initiatives	Existence of Policy			UD		✓		UD	✓	
	Initiatives			✓	✓	✓		UD	✓	✓
	DSM			✓	✓	✓	✓	UD	✓	✓
	CFL			✓	✓	✓		UD	✓	✓
	Smart Meters			UD		✓			UD	UD
	Solar Water Heating			✓	✓	✓			✓	✓
	EE Industrial/Commercial Sectors			UD	✓	✓		✓	✓	✓
	Funding Options			UD	✓	✓				

RERA Initiatives (*contd..*)

- i. Recommendations from Harmonized technical norms include:
- Technical standards and practices should be part of license conditions
 - Specifying a time frame for members to comply with internationally acceptable standards
 - Working relationship with National and international standards organizations

Challenges

- i. Regulators at different stages of development
- ii. Outdated standards
- iii. Insufficient regulations to support standards
- iv. how to maintain real independency and impartiality in the regulatory and decision process
- v. Non-Harmonized Standards and Regulatory Practices
- vi. Role clarity:
 - a. objectives of the regulatory scheme are clear to the regulator's staff, regulated entities and citizens.
 - b. To reduce overlap and regulatory burden

Role of regulators in standards

Regulators ensure effective compliance with rules and regulations

- i. developing rules and connection standards for sector competition
- ii. setting standards related to operation and maintenance
- iii. developing the market rules, codes and standards;
- iv. monitoring and enforcing market behaviour and compliance to rules and standards;
- v. facilitating dispute resolution.

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Concluding Remarks

- Active participation between regulator, utilities, manufacturers and standard bodies to participate in standard development.
- Need for harmonisation of international standards to regional and local markets.
- Need for conformance based equipment compatibility certification of in the region.

Thank You!

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