AFRICA ELECTRICITY SYMPOSIUM 2025

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ERA
ELECTRICITY REGULATORY AUTHORITY

MINISTRY OF ENERGY AND MINERAL DEVELOPMENT
THE REPUBLIC OF UGANDA

Designing Inclusive Electricity Tariffs for Marginalized and Vulnerable groups in Africa

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Outline

1. Context
2. Tariff Regulation and Determination
3. Marginalized/Vulnerable Groups
4. Designing of Inclusive Tariffs

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Introduction

1. According to World Bank, Electricity Consumption per capita
   - ✓ Sub-Saharan Africa of 383 kWh
   - ✓ South Asia - 956 kWh
   - ✓ Middle East & North Africa - 3,159 kWh

2. 46.7% of the population in Sub Saharan Africa does not have access to clean energy

3. Need to design tariff structures that;
   - ✓ stimulate access to electricity
   - ✓ Encourage efficient consumption of electricity
   - ✓ Support economic growth and social-transformation
   - ✓ Protect the marginalized and vulnerable consumers

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Stages of Electricity Regulation

1. Entry and Exit

2. Price Control / Tariff Regulation

3. Consumer Protection – Quality and Reliability of Supply

Evolution from attracting investments to consumer protection

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Electricity Regulation – Price Control

Under Price Control / Tariff Regulation

1. Financial sustainability – recovery of reasonable costs and framework to sustainable attraction of investments

2. Mimic competition – address monopoly power – incentives

3. Protect vulnerable and marginalized consumers

4. Affordability

5. Efficient allocation and use of energy

Steps in Tariff Determination

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Step 1: Identification of Cost and Revenue Requirements

Costs must be reasonable: Mimic cost minimization in a competitive market

Step 2: Cost Allocation to customer Groups (Class level cost responsibility)

Equity of costs:
- Groups that cause higher costs should meet a proportionate share of revenue:
- High-demand consumers, high voltage consumers associated with lower costs

Step 3: Tariff Determination and Tariff Structure)

Cost reflective tariffs:
- Determination based on costs, cost allocation, energy consumption, Time of use, social concerns (life-line), other government policies

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Marginalized and Vulnerable group

Who are the marginalized and Vulnerable groups

1. Low income earners
2. Consumers of limited influence
3. Consumers whose cost structure is very sensitive to cost of electricity – industries, street lighting,
4. Consumers who would not been served by Utilities under monopoly structure
   - ✓ Increases Opex – sparsely populated settlements
   - ✓ Increase network losses
   - ✓ Low consumption consumers
   - ✓ High cost of connection

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Objectives

Why should Government/Regulator implement such tariffs?

1. Promote access agenda – universal access

2. Enabler for access to fundamental human rights – education, health

3. Development agenda – industrialization of the economy, protection of local industries
4. Security – Street lighting

Designing Inclusive Electricity Tariffs

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1. Avoid providing support to consumers groups that don't need support – who are able to pay
2. Lifeline Tariff for domestic consumers – volumetric (eligibility criteria) or increasing block (every domestic consumer) – **over 200,000 consumers**
3. Creation of specialized customer categories – **public hospitals**
4. Cross subsidization – always strive for full recovery of costs (zero-sum game)
   - ✓ Should be targeted
   - ✓ Opex versus Capex
   - ✓ New connection
5. Tariff structure simplicity versus protection of vulnerable consumers e.g different units for prepayment domestic energy purchases
6. Balance between fixed charge and Variable Charge - balance between affordability and efficient use of electricity
7. Government Policy
8. Low cost connection – light-handed regulation – ready boards
9. Main grid – off grid cross subsidization

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Key Considerations

1. Enabling legal framework – primary legislation, regulations, licences, tariff determination guides (**mandate to establish such a structure**).

2. Technology – ability to configure the tariff structure into the **vending and billing systems**

3. Data – basis for defining how is marginalized/vulnerable – Statistical Bureau, Utility operational data, surveys (**Targeted support!**)

4. Continuous **monitoring and evaluation** – are objectives being met?

5. Make the Utility whole by the day's end, undertake revenue reconciliations – **sector financial sustainability**

6. Engage stakeholders **–** beneficiaries **MUST KNOW** about the initiatives
7. Support to Mini grid development - affordability vv cost recovery

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Conclusion

1. Marginalized and vulnerable groups **are part of electricity consumers**

2. Beneficiaries should be **deserving and be made aware**

3. Regulators have **obligation to protect** Marginalized and vulnerable consumers

4. **Financial sustainability** matters even with inclusivity

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Thank You!

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