TRANSMISSION TARIFF METHODOLOGY FOR THE WEST AFRICAN POWER POOL

OVERVIEW

ERERA

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**Objective**
Formulate steps to be followed by the Regional System and Market Operator (SMO) to develop a clear, transparent and predictable model for the calculation of transmission prices.

**Legal Basis**
Under **Article 18.5 of Regulation C/REG.27/12/07** of 15 December 2007, as amended, ERERA has the mandate to set regulations on accounting rules for tariff structure and cost for transmission and ancillary services, and approve tariff proposals emanating from operators. The **Directive C/DIR/1/06/13 of 21 June 2013**, on the Organization of the Regional Electricity Market requires ERERA to publish transmission tariffs setting methodology for the regional electricity market.

**Transmission Pricing Principles**
- **Promote efficiency** by providing appropriate price signals to generation and demand.
- **Recover costs** by reflecting the actual cost of transmission services.
- **Be transparent, fair and predictable** to encourage new market participants.
- **Be non-discriminatory**
A point to point methodology: From the Supplier (Seller) to Consumer (Buyer)

MW-Km load flow based. Proportional usage of each asset involved in the transaction.

Transmission Tariff and Losses calculated annually for each and every regional bilateral trade within ECOWAS

The Consumer pays for transmission charges and losses
The fundamental steps in the Regional Tariff Methodology are:

1. Determine regional transmission assets and asset value
2. Calculate annual revenue requirements for each Transmission System Operator (TSO) asset used for regional bilateral trading
3. Calculate use of transmission system and associated transmission losses for each regional bilateral trade
4. Calculate transmission revenue requirements for each TSO for regional bilateral trades
5. Calculate transmission tariff and transmission losses for the purchaser of each regional bilateral trade
I. GENESIS OF REGULATORY FRAMEWORK FOR THE POWER SECTOR IN WEST AFRICA

FUNCTIONNAL DIAGRAM OF THE TARIFF METHODOLOGY

- **STEP 1**
  Determine the Regional assets and Value

- **Network database update**

- **STEP 2**
  Calculate the Revenue Requirement for each assets used

- **STEP 3**
  Calculate use of transmission system and Losses for each regional bilateral trade

- **STEP 4**
  Calculate each TSO revenue requirements for all it bilateral trades

- **STEP 5**
  Calculate purchaser charges to each TSO

- **Collect Revenue for TSOs, ICC, ERERA**

Run Load flow analysis

Collect Revenue for TSOs, ICC, ERERA
The System and Market Operator (SMO) will collect the revenue from purchasers of bilateral trades for transmission tariff and transmission losses.

ERERA and the SMO revenue requirements will be determined by applying a rate per kWh traded. The rates will be determined by ECOWAS’s regulation on the levies for the operation of the Regional electricity market.

The SMO will pay TSOs their allocated transmission tariff and losses revenue.

Billing and settlements is based on energy schedules and schedules will be provided by the purchaser of the regional bilateral trade.

Billing and settlements will be done monthly.
THANK YOU

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