



ERERA

FORUM 2013

ARREC

November 20 - 21 Novembre
Banjul - The Gambia

Proposed ECOWAS Transmission Tariff Methodology

Mr Neil Pinto
CEO, PPA Energy

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THE NETWORK CONTEXT



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TRANSMISSION PRICING - PRINCIPLES

- Promotion of efficiency
- Recovery of costs
- Transparency, fairness and predictability
- Non-discriminatory






PROMOTION OF EFFICIENCY

- **Appropriate price signals (in economic terms) to generation and demand**
- **Incentives for appropriate investment – locational signals ensure most appropriate siting**
- **Promotes competition by encouraging new entrants to the market**

1)



RECOVERY OF COSTS

- Security in cost recovery  lowered cost of capital due to lower risk profile
- Incentives for appropriate transmission design, based on assurance of payment
- Different methods available for cost computation available
 - Historic costs, Future costs (nodal pricing)
- Transmission prices can recover
 - capital costs
 - O & M costs
 - losses
 - congestion



TRANSPARENCY, FAIRNESS AND PREDICTABILITY

- Clear methodology, easily demonstrable calculations
- Fair and equitable to all existing and new parties
- Stable over time - immune to 'price shocks'
- Ideally clear and straightforward to apply (though this might result in a trade off with economic efficiency)





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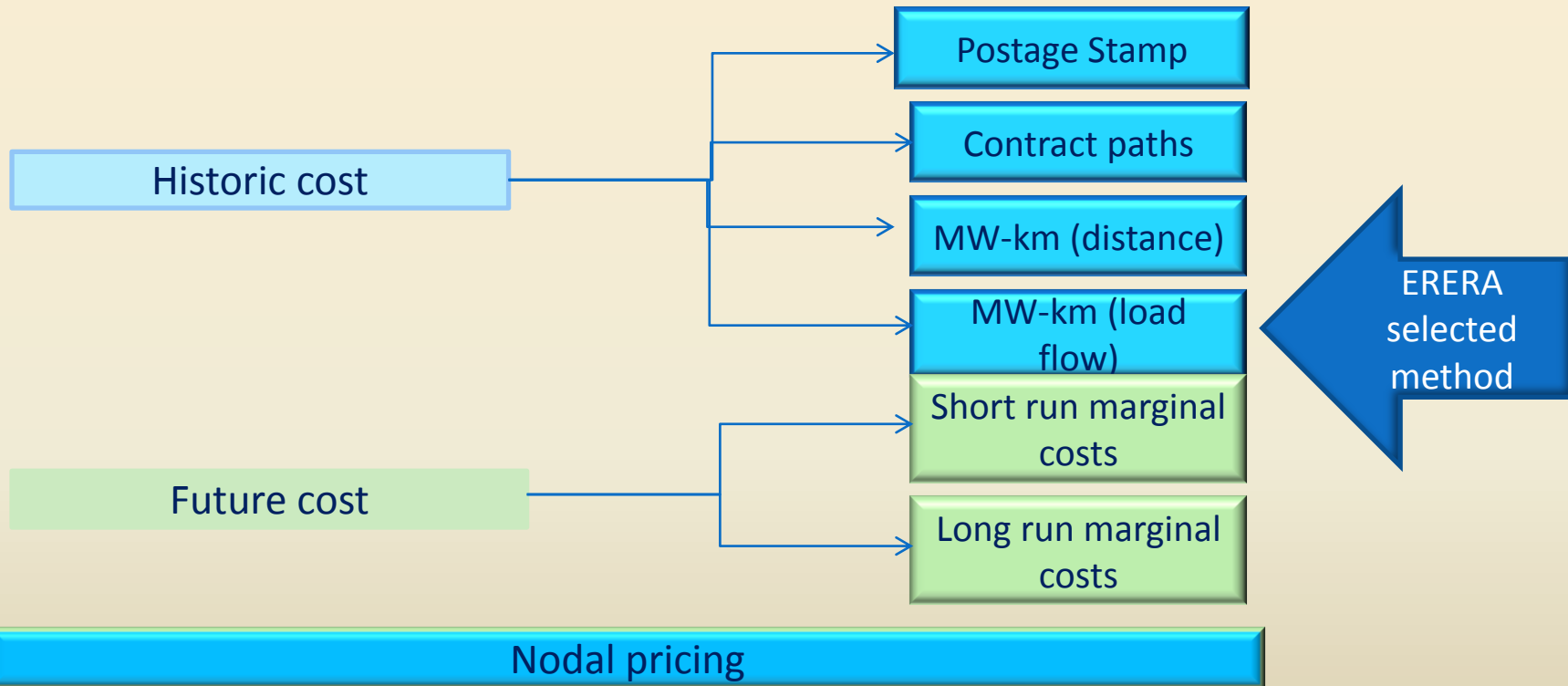
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BE NON - DISCRIMINATORY

- Treat the network users equally in non discriminating nature.
- Residual costs are allocated in a fair manner
- Key issue: balance between local and “international wheeling” costs



SUMMARY OF TRANSMISSION PRICING METHODS





ECOWAS - TRANSMISSION TARIFF AND LOSSES METHODOLOGY - INTRODUCTION

- **A point to point method - Generator to Consumer**
- **MW-km load flow based. Proportional usage of each asset is identified**
- **Transmission tariff and losses calculated annually for each and every regional bilateral trade within ECOWAS**
- **Consumer pays for transmission charges and losses**

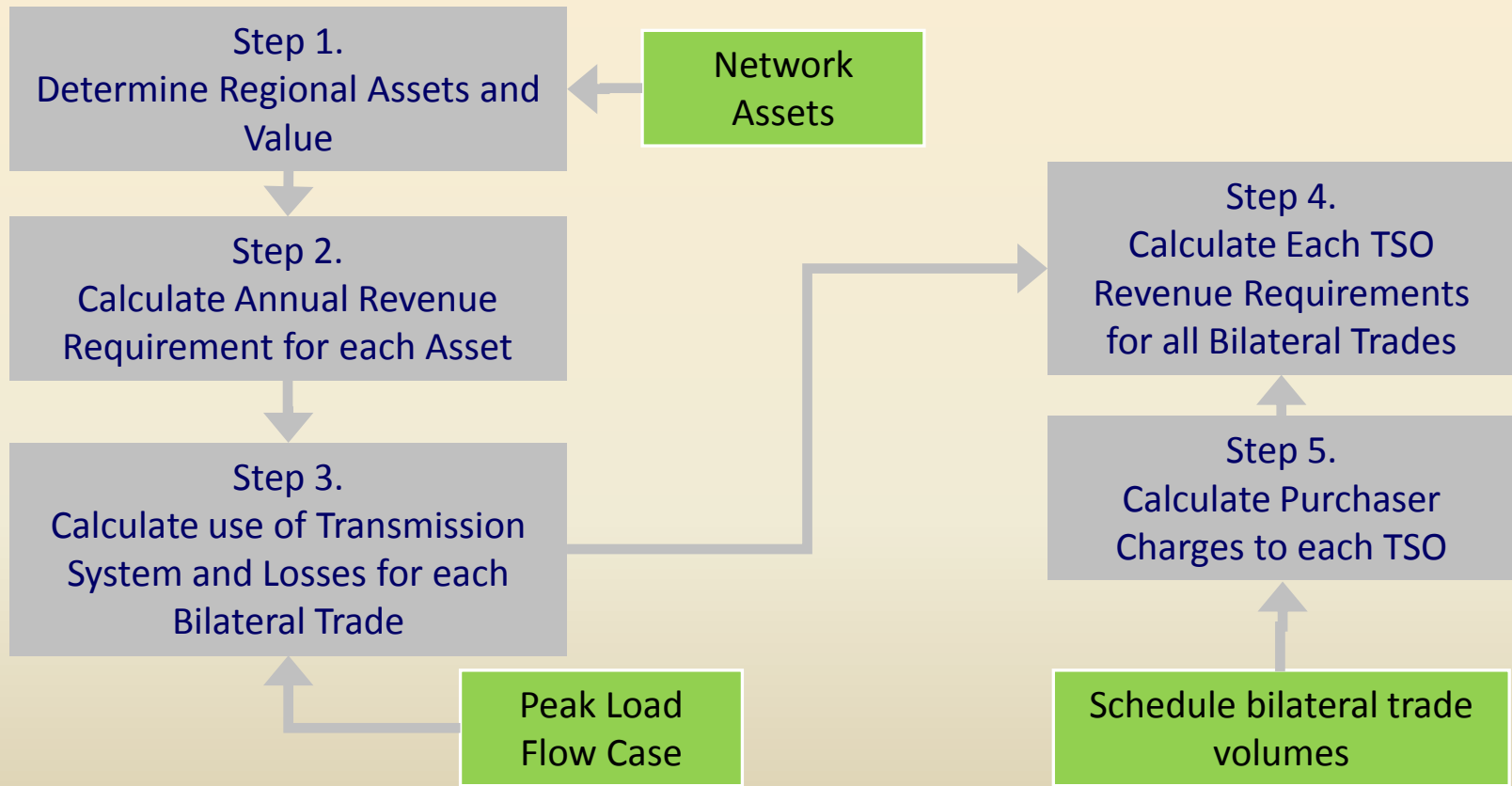


MW-KM (FLOW-BASED)





TRANSMISSION TARIFF SUMMARY OF STEPS





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TSO LOSSES REVENUE FOR A BILATERAL TRADE

- The transmission losses are paid for by the purchaser of the regional bilateral trade.
- The price payable for the energy is determined by ERERA.





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ERERA ROLE AND ERERA FUNDING

- ERERA (or WAPP on ERERA's behalf) will collect from purchasers of bilateral trades for transmission tariff and transmission losses.
- A percentage mark up will be allowed to pay for banking charges and ERERA revenue requirements.
- The percentage mark up will be agreed by the ERERA board.
- ERERA (or WAPP on ERERA's behalf) will pay TSO's their allocated transmission tariff and losses revenue.





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BILLING AND SETTLEMENTS

- Billing and settlement is based on energy schedules and schedules will be provided by the purchaser of the regional bilateral trade.
- Billing and settlement will be done monthly.





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CONGESTION MANAGEMENT

- Congestion is managed on a first come first serve basis.
- The last signed regional bilateral trade will be the first to be curtailed.





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THANK YOU

Contact : Marie d'ARIFAT

ARTELIA Ville & Transport Département ICEA

50 avenue Daumesnil

75579 Paris Cedex 12- France

Tél. : +33 (0)1 48 74 04 04

Fax : +33 (0)1 48 74 04 35

icea.paris@arteliagroup.com

Contact : Neil PINTO

PPA Energy

1 Frederick Sanger Road

Guildford GU2 7YD, UK

Tel: +44 1483 544944

Fax: +44 1483 544955

marketing@ppaenergy.co.uk

