ACCELERATING RURAL ELECTRIFICATION IN KENYA

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Evidence to Action: Engineering for Development
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Kenya’s Electrification Status

• Total population is about 40 million - 10 million households.
• Electricity coverage is 80%.
• Electricity access levels is 37%.
• Customers/households connected is 3,375,000.
• Un-electrified households slightly over 6 million.
Connection Policies & Strategies

• Demand driven connections at cost by KPLC.
• Connection fee subsidies i.e. USD 372 for single phase connection (within TX range of 600m).
• Soft loans to cover connection fees.
• Group schemes to leverage on connection cost.
• Creation of REA to accelerate rural electrification programme.
Connections Achievement

- 500,000
- 1,000,000
- 1,500,000
- 2,000,000
- 2,500,000
- 3,000,000
- 3,500,000


1,267,198 1,463,639 1,753,348 2,038,625 2,330,962 2,766,441 3,309,425

R.E.P. Customers  KPLC Customers  TOTAL customers
Governments Target

1. Targeting universal access by 2020 in line with corporate strategy and country’s development plans.

2. Targeting customer base of 6.7 million by 2017 (over 70% access rate).

Research Evidence

• Under grid households as target zones for increased connection.
• New financing mechanism and connection fees levels and effect on electricity access.
• Effect of mass connection on connection cost.
• Zoning of the households into under grid and off-grid provided a structured approach to electrification programmes.
Connection Policy & Strategies Shift

- **REA Electrification strategy** – Public facilities connection now includes transformer maximization
- **KPLC low voltage network maximization strategy**
- **Connection fee policy** – Financing mechanisms and Government subsidy
- **National Electrification Strategy** – Last mile connectivity program.
Challenges on use of Evidence

• Bureaucracy in Government and Government Agencies.

• Political influence.

• Commitment to use of research findings.

• Unplanned change in Government policies and strategies.
Possible Solutions

• Involvement of the Government or Government Agencies in the research work.

• Discuss research problems/objective prior to commencing research.

• Political neutrality & being objective in the study.

• Share information/findings with all relevant stakeholders.
Unanswered Questions

• What % of the households would be able to pay for both the electricity bills once connected?

• What is the optimal connection fee and which is the best payment mechanism?

• Does increased household connection result to substantial reduction to use of kerosene?
New technologies - Grid watch & EDW-BI

• The national grid network has a system loss of 18%.

1. Use of technology to determine the frequency and length of outages.

2. Data to be analyzed to advice policy and strategy.
THANK YOU