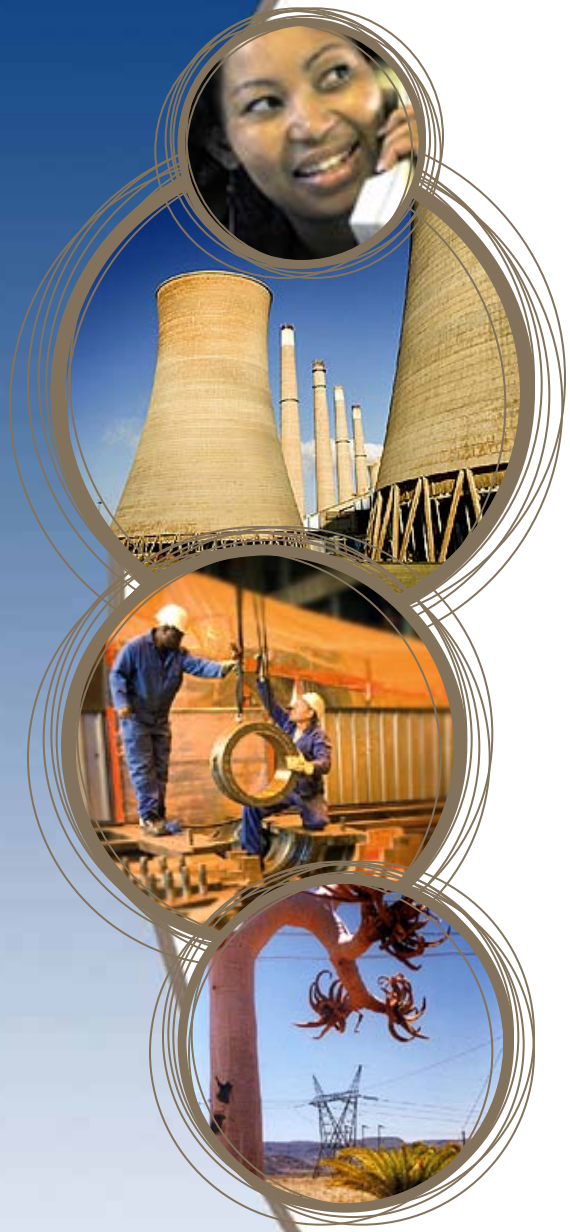

Eskom Holdings Ltd

The Role of Grid Electricity towards Energy Access in Sub-Saharan Africa

ASSAF Presentation

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Facts

- The UN estimates Africa's population to double by 2050
  - 2 billion people without access to modern energy services
  - 2/3 will live in the rural parts of sub-Saharan Africa.
- Rural energy access has remained stagnant at 6% for more than a decade.
- Electricity plays a key role in the delivery of essential services vital for improved quality of life.
- Renewable energy access will significantly advance movement towards a sustainable development path.

Challenges with energy access

- In Sub-Saharan Africa, particularly in the rural areas,
  - households have lower income levels; low ability to pay for energy services;
  - low levels of consumption; high system losses (technical and non-technical);
  - generally high cost of connections to the grid and maintenance;
  - ineffective management and collection system.
  - There is also a challenge of scaling-up of systems in small and dispersed communities.
- The financial crisis also had far-reaching implications on energy poverty and energy access
- The overall cutback in power sector investment has impacted the fight against lack of access and will further strain utility finances.
- The private sector simply cannot make a financial return on investment if rates remain low. Utilities need to maintain a certain level of operational efficiency in order to remain financially viable and competitive.

The Role of Utilities

The role of utilities can critically be categorized into the following core areas which are directly aligned with the power supply value chain:

a). Provide adequate reliable and affordable generation capacity – desirably with a low emissions footprint.

b). Deliver large scale infrastructure - Large scale electrification of urban areas and the related commercial and industrial development needs effective and reliable grid infrastructure.

c). Form partnerships with governments, development agencies and funding institutions, cross border agencies for major transmission lines etc., Eg. Southern African Power Pool (SAPP) presents an opportunity for utilities to work together in the development of large infrastructure for mutual benefit.

d). Utilities have a critical role in connecting poor customer. Eg South African RDP programme.

Funding

Utilities have resource constraints, also added by the recent financial crisis

There is a need massive public finance, for increased financing resources and creation innovative financing instruments and mechanisms to:

- support energy for sustainable development,
- to scale-up and to facilitate growth in the SME's sector,
- to provide financial resources for countries in SSA to meet their capacity needs,
- to strengthen national institutions involved with energy,
- to promote energy efficiency, renewable energy and advanced fossil-fuel technologies.

•***Public funding*** for non-commercial aspects of community level approaches and capacity development is crucial for commercial sustainability.

•***Private financing***, G8/20 and African Diaspora as catalysts for private funding are but important financing considerations for addressing the challenges faced due to reduced fiscal space and resource constraints.

International Cooperation

- Utilities have a key advocacy role to ensuring effective energy provision.
- Utilities can participate in global initiatives such as Energy Access Partnership (EAP). EAP is an initiative which addresses the need for a commercially-based business model and a delivery mechanism to make energy projects bankable.
- By pioneering a global partnership between the World Economic Forum (WEF), World Business Council for Sustainable Development (WBCSD), World Energy Council (WEC), EAP, is developing a constituency for action towards modern energy access with Governments, IFIs, (WB, IFC, ADB, DBSA) private companies, utilities (Eskom, Vattenfal, BC Hydro, Manitoba), global corporations & associations (SANEA).
- EAP emphasizes that rural access to reliable and affordable energy services can be enhanced through utilization of renewable energies via decentralized generation, with entrepreneurs and communities playing a major role.
- Private companies and utilities are able to provide training and support to community associations to maintain, operate and manage the energy systems.

RDP (Reconstruction and Development)

In 1994 to 1999 SA's access to electricity increased from 30% to 70% through RDP (Reconstruction and Development) electrification programme.

What was the role of Government?

- undertaking the electrification planning
- funding the capital portion of the infrastructure

What was the role of Eskom?

- managing the implementation
- the building of infrastructure
- making the physical connections
- integrating the new customers into their customer base.

•Normal operating and maintenance costs are included in Eskom's normal activities - (covered by internal cross subsidisation through the electricity tariff)

•Customers are on prepayment metering

•Free Basic Electricity - 50kWh per month at zero tariff.

RDP (Reconstruction and Development) contd.

The Role of the Community?

- Local community buy in and involvement is important
- Local communities need to be involved in the planning, execution and end use of electricity.
- Wherever possible local skills and businesses should be used in infrastructure development
- The leverage of electricity for local economic empowerment should be facilitated

The Outcome!

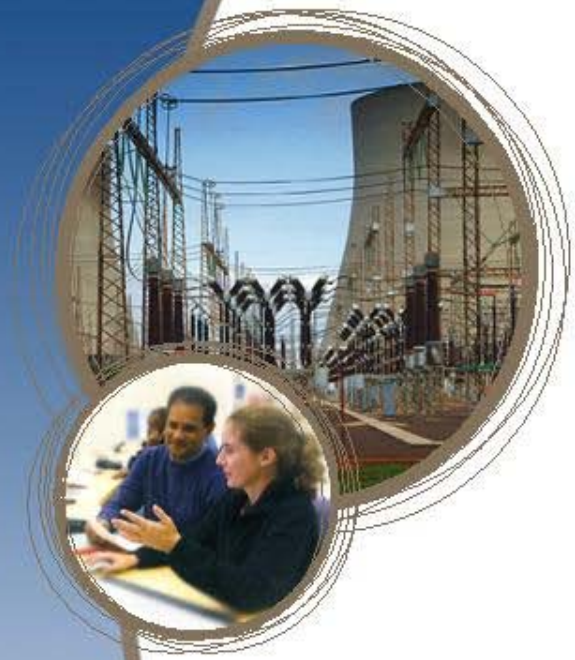
- high incremental connection costs for rural communities were neutralised through Government subsidy
- strengths of the different partners were optimally leveraged;
  - with Government as a funder and agency for social and economic development,
  - Eskom as infrastructure developer and commercial operator and the local community as beneficiary

SA Electrification Plans

- South Africa has a target for universal access to electricity by 2014.
- National plans are in place to expand the power supply, effectively doubling installed generation to some 80 000 MW by 2025 with associated grid expansion and strengthening.
- South Africa's electrification has been achieved mainly through grid extension
- Electrification of remote rural areas presents challenges for grid electrification but at the same time opportunities for new electrification models, especially including distributed renewable options exist.
- In the future, more renewable sources may facilitate further electrification if barriers to their widespread use are overcome.

Conclusion

- Utilities play an important role in providing modern access to energy in the Sub-Saharan Africa, however, they cannot address universal access independently.
- Energy access programmes particularly in the rural areas places undue pressure and burden on power utilities and insufficient financial returns are but some of the factors that result in utilities not to being sustainable in the long-term.
- There is a call for global cooperation and collaboration to support initiatives that are facilitated by private sector, including utilities themselves to improve provision of energy access.
- De-centralization of energy supply could contribute to the growth of small and medium-scale industries and businesses in rural areas.
    - they can help reinforce local industry capacities and result in scaling up of rural energy access.
- Sound policies, technical support and management, sufficient financing, and most importantly cooperation and collaboration with utilities can result in scaling up of community level solutions to provide reliable energy access to communities in Sub-Saharan Africa.



Thank you

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