



COUNTRY POSITION PAPER

**An Overview of the Energy Sector
in Kenya**

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at the Small Hydropower Site
Evaluation and Development
Policies Seminar**

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Background

- Kenya is one of East African Countries with an area of 582,646Km² and a population of over 30,000,000 most of whom live in the rural areas.
- Kenya depends largely on agriculture for its revenue, but exports most of its products in unfinished form due to lack of electricity in some of the farming zones, hence no value addition and lower costs of products

Kenya's Energy Resource

Source	Capacity (Installed)
Hydro	674.5MW
Geothermal	57MW
Thermal	410MW

Wind	0.4MW
Import from Uganda	30MW
Total Interconnected System	1,172.4MW

Progress so far made on Rural Electrification-Investment

- 598 m spent during the financial year ending June 30,2004.
- The cumulative amount spent since the inception of the programme in 1978, is 7.827billion.

Progress so far made on Institutional Reforms

- Separation of utility functions:
Generation Company-KENGEN
Transmission and Distribution Company- KPLC
- Set up of Electricity Regulatory Board-ERB
- Govt currently working on a programme to strengthen the institutional capacities in order to improve their operational and financial performance

- Plans underway to set up a Rural Electrification Authority to manage Rural Electrification
- One of the REA objectives will be to explore other non-conventional alternatives to accelerate access to electricity, which will include small hydropower development, photovoltaic systems etc.

The Need to Develop Small Hydropower

- 6.8% Rural population have had access to electricity as at June this year.
- Govt. goal is to connect 150,000 consumers annually
- Prohibitive costs of extending the national grid, at Kshs. 1.3 million per km (16,250USD per km).

- In order to achieve this ambitious goal, many alternatives may therefore have to be explored, Small hydro being one of them.
- There is an estimated 3000MW potential of small hydro, which when tapped can be of great use
- Some tea companies and community groups have already running systems and the impact is clear, with one company (Unilever) making savings of over Kshs.30 million (375,000 USD) on electricity costs

- A missionary complex that includes a boarding secondary school runs on a 70Kw plant
- Another missionary hospital runs on 320KW plant
- Unilever Tea Company has installed capacity of 2.2MW
- James Finlay Tea Company has an installed capacity of 2.4MW
- A small community has installed a 10Kw machine and uses the electricity even for cooking
- A community has a 14Kw machine supplying a trade center where economic activities e.g. welding are already taking place.
- An individual runs his home and a posho mill on a 5Kva synchronous generator.

Steps being taken by the Govt. in promoting Small hydropower Development

- A new policy document now takes into account small hydropower as an option to provide off-grid rural electrification
- A new energy bill that will provide better legal framework for the development of the energy sector will soon be tabled in parliament.

- The Govt. has constituted a Ministerial Advisory Committee on Micro Hydropower to advice on the technical issues related to their development.
- The Electricity Regulatory Board is currently working on a report that will propose more rules and regulations that may be needed to govern the development of these systems.
- Registration to IN-SHP approved.
- Govt. is seeking funds for pre-feasibility studies.

Potential Sites

Name	Flow rate and Head	Remarks
Anake	80l/s,25m	Community seeking funds
Rungariga	60l/s,30m	Community seeking funds
Gitwiki	19l/s,50m	Community seeking funds

- Many other sites have been identified and the hydrological data are yet to be obtained amongst them being:

Name	Remark
Ndurumo Falls	Community ready
Kipkeurit	Community ready
Kipyegon	Community ready
Kipchorian	Community ready
Kimologit	Community ready
United Soya	Community ready

Appeal

- The govt. is currently overwhelmed with requests from communities interested in developing these systems and therefore kindly appeals for:
 - Support in terms of funds
 - Support in terms of Equipment
 - Support in terms of expertise
 - Support in terms of capacity building

THANK YOU