

PRESENTATION
ON
ENERGY POLICY FORMULATION IN UGANDA
FOR



*FOR PRESENTATION TO THE
ENERGY POLICY (B) TRAINING PROGRAMME,
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BY

SAJJABBI J. FREDRICK
SEO/MEMD, UGANDA

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UGANDA

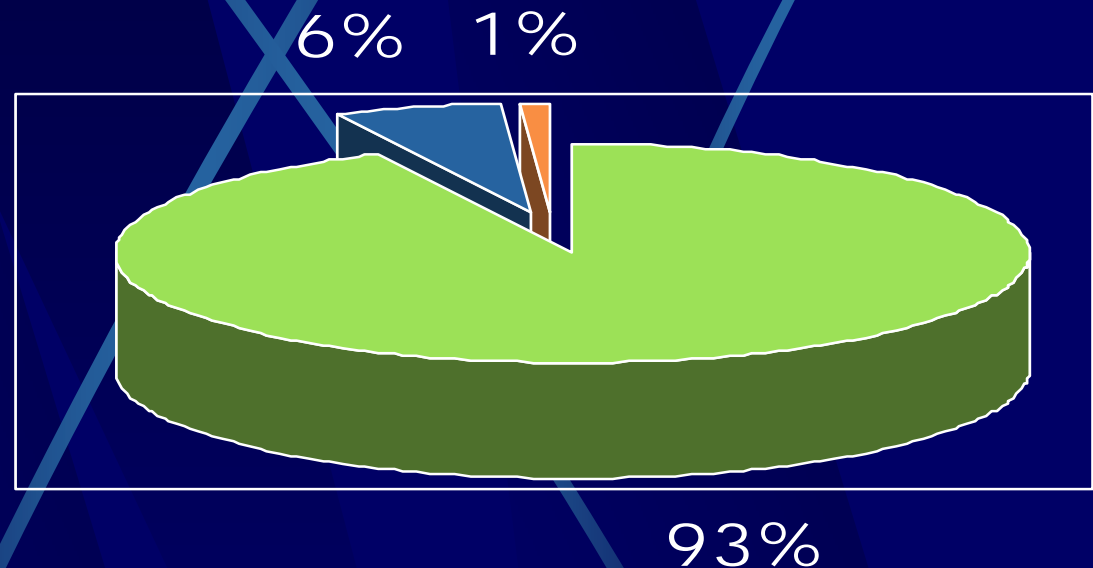
- Area - 241 000 km²
- Population -30 million persons
- Population Growth Rate: 3.4% p.a.
- GDP Growth Rate: 6% p.a.
- Main exports: coffee, cotton, tea, tobacco, fish, flowers.



THE ENERGY SECTOR IN UGANDA

ENERGY BALANCE

- Biomass represents 93% of the national energy balance
- One of the lowest per capita consumption of commercial energy in Africa
- Energy demand growing at about 8%
- oil products imported (100%)
- Renewable energies are abundant but not largely exploited.
- Low rural electrification rate (5%) which is a constrain to the the economic and social development



The Energy Policy in Uganda

● GOAL:

- To meet the energy needs of Uganda's population for social and economic development in an environmentally sustainable manner

● OBJECTIVES:

- To establish the availability, potential and demand of the various energy resources in the country
- To increase access to modern affordable and reliable energy services as a contribution to poverty eradication.
- To improve energy governance and administration
- To stimulate economic development
- To manage energy-related environmental impacts

ENERGY POLICY IN UGANDA

- In 1997, the Government of Uganda formulated a comprehensive plan for transforming the energy sector into a financially viable industry.
- The Parliament of Uganda enacted the **Electricity Act 1999** with the aim of bringing about an enabling environment for the transformation of the energy sector.
- The main objective of the Act was to provide a framework for regulation of the generation, transmission, distribution, sale, export, import, and distribution of electrical energy in Uganda.

ENERGY POLICY IN UGANDA

- The Electricity Act provided the enabling legislation for:
- Liberalization of the electricity industry
- Unbundling of the Uganda Electricity Board into 3 entities: generation, transmission and distribution
- The establishment of the Electricity Regulatory Authority to regulate the sector
- The establishment of the Rural Electrification Fund with the main objective of enhancing rural electrification
- The establishment of the Electricity Dispute Tribunal

ENERGY POLICY IN UGANDA

The Energy Policy for Uganda, 2002

- In 2002, the Government formulated a comprehensive energy policy in order to sustain the economic growth and to ensure widespread access to affordable modern energy services for improving the living standards of all the people in Uganda.
- The energy sector in Uganda lacked a comprehensive, integrated policy framework. The sector was driven by annual ministerial policy statements accompanying the budget.

ENERGY POLICY IN UGANDA (cont'd)

Renewable Energy Policy for Uganda, 2007

- The Overall goal of the Renewable Energy policy is to increase the use of modern renewable energy, so that its proportionate use increases from the current 3.8% to 61% of the total energy consumption by the year 2016.
- The key policy objectives include:
 - Maintain and improve the responsiveness of the legal and institutional framework to promote renewable energy investments
 - Establish an appropriate financing and fiscal policy framework for investments in renewable technologies

ENERGY POLICY IN UGANDA (cont'd)

- Promote research and development, international cooperation, technology transfer and adoption of standards in renewable energy technologies
- Promote the sustainable production and utilization of Bio-fuels and
- Promotion of the conversion of municipal and industrial waste to energy

Current Energy Supply in Uganda

- **POWER GENERATION:**
- **Installed capacity of the hydropower stations is 380 MW (180 MW at Nalubaale and 200 MW at Kiira power plants and these plants could barely satisfy the peak demands.**
- **Small hydro plants: Total to 17 MW**
- **Electricity coverage: 10% (4% in rural areas);**
- **Electricity Consumption: residential 55%; commercial and general 25%; industrial 20%;**
- **However, due to the reduced water levels in the Lake Victoria, as a result of the drought since 2003, the large hydropower plants generate about 140 MW. As a consequence, Uganda has suffered chronic power shortages since 2004.**

Current Energy Supply in Uganda

- In 2005,, Government contracted Independent Power Producers, Aggreko, to supply 100 MW of electricity from diesel fired generators.
- Another 50 MW diesel fired generation was installed at Mutundwe in 2008 and
- A 50 MW heavy fuel oil plants is installed at Namanve.
- A private investor, Bujagali Energy Ltd, is constructing a 250 MW hydropower plant. Completion expected in 2010 – 2011.

Current Energy Supply in Uganda

- **Tullow Oil, a company conducting oil exploration in the Lake Albert region intends to produce 50 – 85 MW using indigenous petroleum resources.**
- **Several small scale power generation plants (from mini-hydro and cogeneration) are under different stages of development. For example, Kinyara and Kakira sugar factories are producing 5 and 19 MW respectively.**
- **Other studies are being carried out to update the power demand.**

Current Energy Supply in Uganda

- The long term plan of increasing power supply capacity for the period 2012 – 2025 include:
- Development of other large hydropower sites, Isimba (100MW), Ayago (550 MW) and Uhuru (300 MW).
- Interconnection of the power grid and
- Geothermal, biomass, and peat.



NATIONAL Demand Forecast

HIGH

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012
Generation GWh	1894	1861	2027	2208	2405	2620	2854	3109	3387
Peak (MW)	334	357	388	421	457	496	538	584	634
Consumption (GWh)	1872	1826	1938	2115	2309	2515	2740	3016	3285

MEDIUM

Generation GWh	1894	1861	1995	2139	2293	2458	2635	2824	3028
Peak (MW)	334	357	382	409	437	468	500	535	573
Consumption (GWh)	1872	1826	1901	2042	2194	2352	2522	2733	2930

LOW

Generation GWh	1894	1861	1941	2024	2110	2201	2295	2393	2495
Peak (MW)	334	357	371	385	400	416	432	449	466
Consumption (GWh)	1872	1826	1855	1939	2026	2113	2203	2321	2421



Load Forecast (Cont')

High

2013	2014	2015	2016	2017	2018	2019	2020
4090	4455	4853	5286	5758	6273	6833	7443
689	748	812	881	957	1038	1127	1224
3967	4321	4707	5128	5586	6084	6628	7220
Medium							
3541	3796	4069	4362	4676	5013	5374	5761
612	655	701	750	802	858	918	982
3427	3674	3938	4222	4526	4852	5201	5588
Low							
2762	2880	3003	3132	3266	3406	3551	3703
484	503	522	543	564	586	608	632
2679	2794	2913	3038	3168	3303	3445	3592

CHALLENGES IN ENERGY POLICY FORMULATION IN UGANDA

- Need for capacity building in the energy sector in policy formulation
- Inadequate funding for the policy formulation process
- It takes a long period in order for the policy to be approved by the relevant authorities and Parliament. It is sometimes overtaken by the changes in the energy sector.
- Escalating prices of oil on the world market affect the implementation of the energy policies.
- Institutional capacity for monitoring and evaluation

PRIORITIES IN THE ENERGY POLICY COURSE

- Learn about experiences in other countries on energy policy formulation, implementation, monitoring and evaluation.
- Investment planning and management of demand and supply

MORE INFORMATION

Ministry of Energy and Mineral Development,
Amber House,
Plot 29/33 Kampala Road,
P.O.Box 7270
Kampala (Uganda)
Tel: +256 41 234733
FAX: +256 41 234732
e-mail: psmemd@energy.go.ug
Web Page: www.energyandminerals.go.ug



*THANK YOU FOR
LISTENING TO
ME*