

## POWER SECTOR REFORM IN UGANDA

#### By

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## **Geographical Location**







 Once known as "The Pearl of Africa", Uganda lies in the heart of Sub-Saharan Africa.

The country has become a model of reform in Africa due to its success in implementing Economic Reform Programmes.

## **Country Data**

- Land Area
- Water & Swamps
- Altitude
- Mean Temp.
- Minimum temp
- Maximum temp
- Annual rainfall
- Population
- Literacy rate
- Electricity Access
- Real GDP per Capita

197,097Sq.Km

43,942 Sq.Km

1,000m above Sea Level

21°C

12.5°C

30°C

1,380 mm

24.7 Million - 2002 Census

61%

9 % Population.

US\$320 per annum

## **Background to Utility Reforms**



- The Government of Uganda adopted the economic liberalization policy in the early 1990s.
- By 1992, there were more than 140 state-owned enterprises in Uganda.
- The enabling legislation for Privatization and Utility Reforms, the Public Enterprises Restructuring & Divestiture (PERD) Statute, was enacted in 1993.





#### The PERD Statute inter alia:

- provided guidelines for reform and divestiture;
- classified public enterprises for divestiture and reforms;
- established the institutional framework for policy implementation.

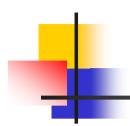




The Privatization and Utility Sector Reform Project (PUSRP) was created in the Ministry of Finance & Economic Development to implement the privatization programme and utility reforms.

To-date, about 113 enterprises have been privatized.





- Prior to the introduction of the power sector reforms, the Uganda Power Sector was dominated by a public vertically integrated utility, the Uganda Electricity Board (UEB).
- UEB assumed both a regulatory role and a monopoly to generate, transmit and distribute electric power in Uganda. It also had export agreements with the neighbouring countries.
- Currently, about 220,000 Ugandan households i.e. less than 9%, are connected to the grid system.

## Rationale for Power Sector Reforms

- The main factors that justified the need for the reforms were:
- Private sector led economic growth hence the need to get rid of monopoly.
- Low efficiency characterised by
  - High level of system losses up to 40%
  - Unreliable and poor quality of power supply constraining business development.
- Attraction of private capital
- Very low coverage and access to the grid
- The Utility (UEB)'s inability to service its debts
- Unfulfilled export potential



- In June 1999, the Government put in place the Power Sector Restructuring and Privatisation Strategy (PSRPS), the principal objectives of which were:
  - to make the power sector financially viable and efficient
  - to meet the growing demands for electricity and to increase area coverage
  - to improve the reliability and quality of electricity supply
  - to attract private capital and entrepreneurs; and
  - to take advantage of export opportunities

## The Legal Framework

- To enable the reform process in the electricity sector proceed, a new Electricity Act was enacted in 1999, repealing the 1964 one. Its main objectives were to:
  - remove the monopoly of UEB and thus enables private participation in the power sector
  - provide for regulation through the Electricity Regulatory Authority (ERA), and
  - permit the privatisation of UEB.

The Electricity Act, 1999 together with the PERD Statute, 1993 (and its amendments) provided the legal framework for the reforms.

#### The Institutional Framework



- A Utility Reform Unit (URU) was created in the Ministry of Finance, Planning & Economic Development as lead agency for privatization.
- URU reports to the Divestiture & Reform Implementation Committee (DRIC) made up of a team of Cabinet Ministers.
- URU however, works closely with the sector Ministry of Energy & Mineral Development.

## Regulation



- The Electricity Regulatory Authority (ERA) was established in April 2000.
- The key functions of the ERA are:
  - issuing licenses for electricity generation, transmission, distribution, Supply, imports and exports
  - Reviewing and approving tariffs
  - Establishing and enforcing sector standards
  - Advising the Minister on matters regarding the needs of the electricity sector.





#### **Key activities by Government:**

- Financial, legal and environmental due diligence;
- Inventory and valuation of UEB assets and liabilities;
- Distribution and transmission investment needs analysis;
- Financial and tariff modeling;
- Drafting of licenses, regulations, concession and power sale agreements.

### **Successor Companies to UEB**

- The unbundling of UEB formally commenced on 1st April 2001. Successor companies were created and assets and liabilities of UEB were transferred to them as follows:
  - Uganda Electricity Generation Co. Ltd (UEGCL) that owns the two major hydro-power plants at Nalubaale (180 MW) and Kiira (200 MW).



### **Successor Companies to UEB**

- Uganda Electricity Transmission Co. Ltd (UETCL) which owns and operates the transmission infrastructure above 33 kV.
- Uganda Electricity Distribution Co. Ltd (UEDCL) that owns and operates the distribution network at 33 kV and below.
- Uganda Electricity Board (Statutory Corporation) that remained in place in order to wind up.



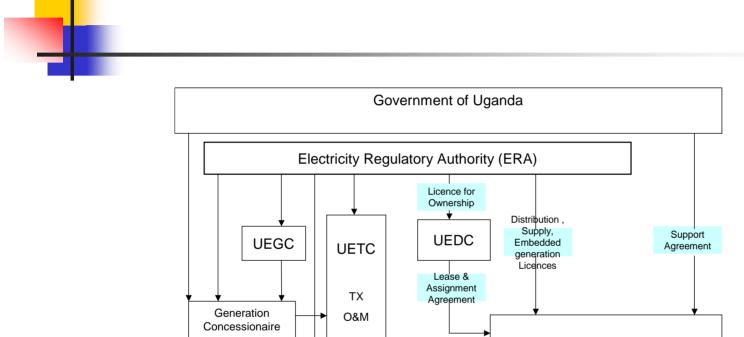


- The Government of Uganda adopted the methodology of privatizing UEGCL & UEDCL through long-term concessions.
- UETCL that serves as the power super highway is to remain with Government for the time being.



Distribution Concessionaire

Customers



System

Operator

Export /

Import

Power Sales

Agreement

Other

**IPPs** 

Kenya ◀ Tanzania ◀



#### **Overview of Generation Concession**

- A 20-years Concession has been granted to Eskom (U) Ltd (the Concessionaire) to maintain and operate the Kiira and Nalubaale hydroelectric power stations owned by UEGCL. In addition, the Concessionaire agreed to the following:
- Paid an upfront transaction fee to Government.
- Committed to an agreed investment programme.
- Pays a monthly concession fee to UEGCL for the assets it operates.
- Receives from UETCL a monthly capacity payment for the power it sells.



#### **Overview of Distribution Concession**

- A new concession company, Umeme Ltd., has been established by a Consortium; Globeleq and Eskom Enterprises.
- The concession involves Umeme and other parties entering into a number of agreements
  - Lease and Assignment Agreement with UEDCL
  - Support Agreement with Government of Uganda
  - Power Sales Agreement with UETCL
  - Licences by ERA for
    - Distribution
    - Supply, and
    - Embedded generation

## The Agreements



- The Lease and Assignment Agreement includes the following features:
- 20-years Concession to maintain and operate the electricity distribution network owned by UEDCL and to collect revenues from all connected customers based on the tariff set by the Electricity Regulatory Authority (ERA).
- An obligation to make minimum annual investments in system rehabilitation and reinforcement.





- The obligation to return control of the assets, including all new investments, to UEDCL at the end of the lease, but with a payment for any un-depreciated new assets
- An obligation for UEDCL to complete the investments already financed and presently under implementation (e.g. African Development Bank Urban Power Rehabilitation Project)

## The Agreements



#### The supply and distribution licences provide for:

- An exclusive right to supply electricity in an area up to one kilometer radial distance from the existing distribution lines, with other firms being free to compete to supply electricity beyond this area.
- An obligation to provide service within the area of exclusivity.

#### The Tariff

- Under the Electricity Act the tariff structure and terms of supply are prescribed by the Electricity Regulatory Authority, ERA
- The licensees make applications for the tariff they wish to charge and ERA reviews the applications
- Wide stakeholder consultations, including Public hearings are conducted during the review process
- After approval the licensee may, on a quarterly basis, apply for revisions based on inflation and foreign exchange rate fluctuations

#### The Tariff

The tariff is set by ERA after application by the licencee followed by a wide stakeholder consultation which includes public hearing.

- Revisions are possible on quarterly basis.
- As a policy tariff is based on total revenue requirement.

#### **Rural Electrification**

- After the reforms, rural electrification is undertaken by a Rural Electrification Board (REB) that manages a Rural Electrification Fund (REF). The secretariat of the REB is the Rural Electrification Agency (REA).
- Sources of funds for the REF include:
  - Appropriation by parliament
  - Surplus from operations of the regulator (ERA)
  - Levy on transmission bulk purchases of electricity
  - Donations, gifts, grants and loans

## Status of competition in the sector

- Competition has been introduced into the sector through the licensing of independent power producers (IPPs).
- A number of IPPs have currently obtained Permits from the Electricity Regulatory Authority to carry out feasibility studies on sites with potential to generate mini-hydro power.

## Power Sector Reform Milestones

- 1. Cabinet Approval of the Power Sector Restructuring and Privatization Strategy (PSRPS) Jun 1999
- Electricity Act Passed by Parliament Nov 1999
- 3. Commencement of the Implementation of the Uganda Electricity Board (UEB) Privatization Apr 2000
- Appointment of Commissioners of the Electricity Regulatory Authority (ERA) Apr 2000



- 5. Unbundling of the UEB and Establishment of Generation, Transmission and Distribution Successor Companies

  Apr 2001
- Issuing of Final Request For Proposals (RFP) with Transaction Documents
   Apr 2002
- 7. Final Proposals Submitted Jul 2002
- 8. Signing of Electricity Generation Concession Nov 2002
- Signing of Electricity Distribution Concession May 2004
- 10. Expected transfer of distribution concession
  Oct 2004





- 1. Through unbundling, problem areas have been clearly identified for redress;
- 2. Private investment has been attracted in the power sector;
- 3. Competition has been encouraged in the sector
- 4. Rural electrification is now a prime programme and electricity access is on the increase
- There is increased efficiency, accountability and transparency in operations and service delivery and this is expected to improve further as demonstrated in the following table;

### Achievements so far made

#### Comparison of Performance Pre- and Post reforms

Unit of Measure	PRE - REFORM -2000		ACTED DE		
Measure			AFTER REFORM - 2003		
	UEB	UEGCL	UETCL	UEDCL	
				_	
GWh	1,539	1,756	-	-	
GWh	843		-	1,038	
%	39	-	5	28	
No.	180,234	-	-	244,247	
No.	2,100	83	285	1,420	
%	64	-	-	77	
	% No. No.	GWh 843 % 39 No. 180,234 No. 2,100	GWh 843 - % 39 - No. 180,234 - No. 2,100 83	GWh       843       -         %       39 - 5         No.       180,234       -         No.       2,100 83 285	

#### Conclusion

- The reforms in the Uganda power sector have progressed steadily because of the high level of Government support and political will.
- Performance of the sector is improving but has to be evaluated over a longer period of time to fully appreciate the benefits of the reforms.
- A cost reflective tariff attracts investment and ensures economic viability of the power sector.
- Rural electrification requires Government support and can be carried out successfully through both public and private sector involvement.



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