How Uganda’s electricity sector has transformed

Before the British Protectorate government created the Uganda Electricity Board (UEB) in 1948, power in Uganda was generated, transmitted and distributed by the East African Power & Lighting Company (EAP&L), which operated in Uganda between 1918 and 1954. UEB, used diesel to produce power, according to the power sector reform and regulation in Africa report. The company had generators in Entebbe, in the initial capital in the days of the protectorate government, and in Kampala. In 1950, the government commissioned the building of the Owen Falls Dam.

Four years later, the plant’s first two turbines, each with a capacity of 10 megawatts (MW), started spinning.

At the time, suppressed demand for electricity was very low. According to the aforementioned report, between 1954 and 1968, eight more turbines, each with a generation capacity of 15MW, were commissioned.

So, as of 1968, Uganda had an installed hydropower generation capacity of 150MW.

Power was sold on a season basis, and the government used the revenue from sales to fund the purchase of power from EAP&L.

When completed, Kira hydropower plant, which is expected to enable the country to generate more power.

TRENDS

Uganda’s installed electricity generation capacity has increased from 180MW in 1986 to 873MW in 2017.

Many power plants have been built over the years. This has been possible because of the stable investment climate and the institution of standardised Power Purchase Agreements (PPAs).

With the standardised PPAs, an investor gets to agree with UETCL on the costs to be invested and how they will be recovered and in what portions and over what period.

Though power generation capacity has increased, peak demand was as of 2017 just 600MW. That means there is a surplus of about 300MW.

The commissioning of the Kasese later this year, and of Karuma next year, another 783MW will be added to the grid.

When suppressed demand grows at a slower pace, Uganda will by 2020 have even more power than it can use – unless the government does something.

So far, it is encouraging for foreigners to build factories in Uganda, arguing that there is abundant power.

The government is also planning to export power to South Sudan and more to the Democratic Republic of the Congo.

To that effect, it has signed Memorandums of Understanding with both countries. With the Democratic Republic of the Congo, it has even conducted a feasibility study to establish the viability of the project and how much it will cost.

Regarding energy losses, they are now lower at 17.5 per cent.

What is not very clear is from what percentage.

According to power distributor Umeme’s documents, when it took over the power distribution network in 2006, losses were at 38 per cent. However, according to the 2007 report on electricity tariff reduction also known as the General Saleh committee report, the chairman of the ETRA board and the managing director of UEDC, have documented the losses witnessed at the concession having been between 27 per cent and 30 per cent.

*Other information available to the committee indicates that unbounding the loss figures were between 22 per cent and 28 per cent.

The transmission line was expanded from 909 kilometres in 1996 to 1,300 km in 2017. Distribution lines, substations have been constructed to calibrate the power from the grid for distribution to domestic users.

The access rates vary from urban to rural areas. In the rural areas, seven per cent, up from one per cent, now access electricity.

The increased access rate is also attributed to grants development partners such as KfW, Norway, Germany and the World Bank have availed to connect poor households to power.

On collections, the rate has increased from 50 per cent in 1997 to 99.2 per cent (Umeme, 2017).

One explanation for the low collection rate during the UEB days was that most of the debtors were government ministries, departments or agencies.

The MDAs accounting officers were in a frame of mind that one government agency of department would not come down hard on another department.

What is more, the defaulters then as is the case today, were security and health institutions such as army, police, prison and referral hospitals.