



What is Hampering Access to Rural Electricity in Uganda?

OVERVIEW

Limited access to electricity in Uganda continues to affect the delivery of social services, constrain the development of small-scale industrial and commercial enterprises and adversely affect large-scale industrial and commercial investment.

To alleviate this situation, the Government of Uganda (GoU) has initiated several interventions to achieve its electricity access targets: (i) the Uganda Vision 2040 - access of 80 % by 2040, (ii) the National Development Plan II, access from 14% to 30% by 2020; and (iii) the 2013-22 Rural Electrification Strategy and Plan target to increase access to electricity in rural areas from 7% to 26%.

This policy brief reviews the factors for the slow progress

KEY ISSUES

- ❖ High initial connection costs for an electricity connection. These include:
 - Wiring of houses that is unaffordable to many because of the Standards.
 - Complicated application process that entails various trips to the offices of the service providers
 - High connection costs of small service providers who are serving the rural populations

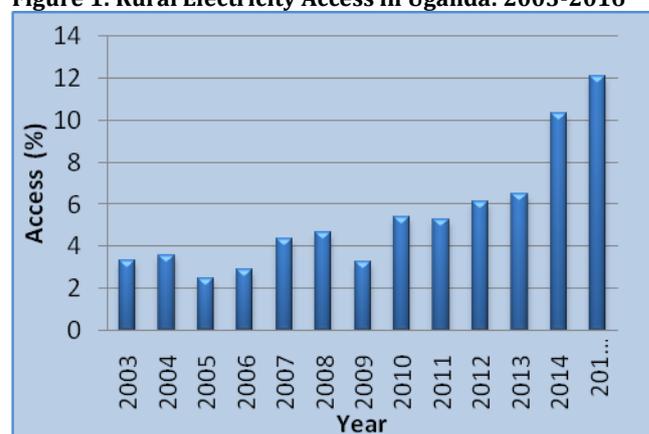
Introduction

Before 2003, less than 9.7% of the total population in Uganda had access to electricity. The level of access for the urban population was 55% compared to a mere 3.3% for the rural population.

To reduce the inequality, Government of Uganda developed and adopted the Rural Electrification Strategy and Plan (RESP) 1 & 2 to be implemented by the Rural Electrification Agency (REA). REA is a statutory body formed in 2003 with the

responsibility of undertaking rural electrification on behalf of Government with policy guidance from the Rural Electrification Board. Since its inception, REA has extended over 10,000km of medium voltage electricity lines and 7,000 km of low voltage distribution electricity lines. Rural electricity access has increased from 3.3% in 2003 to 12% in 2016 (Figure 1).

Figure 1: Rural Electricity Access in Uganda: 2003-2016



Source: World Bank and REA



Major electrification interventions to date

The major programmes include:

❖ **Energy for Rural Electrification (ERT) I & II** Projects which were funded largely by the World Bank to a tune of US\$ 111.24 million and US\$105 million respectively. The ERT I & II were primarily designed to build and extend rural electrification lines to those areas not covered by the grid, but this did not address the issue of the final connection to the consumer. Major Projects completed under ERT I & II included Kyotera-Mutukula, Kikorongo-Bwera-Mpondwe, Mbarara-Kikagati-Kyamate, Soroti-Katakwi-Amuria, Ayer-Kamdini-Minakulu-Bobi, Ibanda-Kazo-Rwemikona-Rushere, Ntenjeru-Buremba-Rukunyu, Ntenjeru-Bule-Mpenja, Ruhiira Millenium Project, Kasanje-Buyigo-Bugogo-Bulumba and Kagando Hospital Interconnection.



Completed Hoima-Kiziranfumbi rural electrification scheme funded under ERT II

Support from the Governments of Japan and Sweden through the Japan International Cooperation Agency (JICA) I& II projects and Swedish International Development Cooperation Agency (SIDA) I & II projects respectively. There was also support also from the Royal Kingdom of

Norway, and of recent funding has also been obtained from Arab Bank for Economic Development in Africa(BADEA), Saudi Fund for Development(SFD) and Organization of the Petroleum Exporting Countries Fund for International Development(OFID).

The projects also concentrated on extension of lines. Completed lines under JICA and SIDA include; Rugombe-Kyenjojo-Katooke, Namayembe-Namuntere, Corner Kilak-Patongo, Fort-Portal-Bundibugyo-Nyahuka, Masaka-Bukakata, Kagadi-Munteme, Nabitende-Itanda, Bugeso-Lwemba and Mayuge-Namyingo-Lumino, Myanzi-Kiganda-Mubende, Muhanga-Rwamacucu-Kisiizi-Kyempene, Mubende-Kyenjojo, Rakai-Lumbugu-Lyantonde, Lira-Adwani-Abim and Parak Mission-Awene-Corner Kilak.

Projects recently been completed under BADEA/SFD funding in 2016 are Kasambira-Bugulumbya-Bukuutu in Kamuli, Kween-Bukwo-Suam, Mayuge-Bwonda, Mityana-Lusalila, Kyotera-Kabira-Mitondo, Hoima-Katikala-Nalweyo and Kitgum-Namokoro-Lagoro.



Completed Mayuge-Namayingo rural electrification scheme funded under JICA



❖ **The 4-year Output Based Aid(OBA) project** was funded by the Global Partnership on Output-Based Aid (GPOBA). The funding was drawn from The World Bank (IDA), Germany Financial Cooperation (KfW) and the Government of Uganda. The project began in 2013 and was estimated at US\$21.69 million. Under this project, a subsidy was provided for household electricity connections on an output basis to reduce the capital costs associated with obtaining electricity connections, which has been a significant barrier for rural households.

The subsidies were channelled through REA and the OBA service providers included UMEME, Uganda Electricity Distribution Company Limited (UEDCL), Pader Abim Community Multi-purpose Electric Cooperative Society (PACMECS), West Nile Rural Electricity Company (WENRECO), Ferdult Engineering Services Limited (FESL), Kilembe Investments Limited (KIL), Kyegegwa Rural Electric Cooperative Society (KRECS). The connection costs used by the service providers were approved by ERA.

Table 1: Connections under OBA, 2013 to 2016

Service Provider	No. of connections			
	2013	2014	2015	2016
UEDCL	0	0	2,206	606
UMEME	0	1,879	81,653	6,791
WENRECO	41	778	0	0
FESL	47	1,146	303	0
BECS	76	1408	1521	1,091
KIL	324	2,204	1,529	1,914
KRECS	0	0	0	532

Source: REA

Although the OBA faced challenges at the beginning in 2013, it was partly responsible for the leap in the level of rural access from 6.11% to 12% from 2014 to 2016. More than 100,000 new rural connections were completed under the OBA initiative with 80% of these done by UMEME (Table 1).

Why have past interventions not yielded much success?

The success of Government initiatives such as OBA has been poor because of many factors namely:

- It is expensive for the rural population to wire their houses using the standards stipulated by the Electricity Regulatory Authority (ERA).
- The application process for connection is complicated since consumers have to visit the offices of the service providers which may be distant.
- The discrepancy in the connection costs across different service territories (Table 2). UMEME customers have the lowest connection costs while the smaller service operators, mainly serving the rural population, are very costly.

Table 2: Approved connection charges

Service provider	Inspection fees	Cost(UGX)	
		No-pole	1-pole
UEDCL	20,000	597,020	1,200,000
UMEME	41,300	98,000	326,000
WENRECO	0	546,400	2,200,000
FESL	41,500	344,560	-
BECS	22,400	391,400	-
KIL	38,000	420,000	1,200,000
KRECS	20,000	391,400	1,200,000

Source: REA, Field findings



Because of having the lowest connection costs, UMEME outperformed other service providers in the total electricity connections done from 2014 to 2016 (Table 3).

Table 3: Total Rural Connections, 2013-2016

Service Provider	No. of connections			
	Year			
	2013	2014	2015	2016
UEDCL	2,740	2,221	3,886	4,586
UMEME	0	1,879	81,653	19,684
WENRECO	864	1,825	1,958	2,724
FESL	3,518	3,823	6,093	959
BECS	579	733	1,344	1,224
KIL	1,145	2,225	1,683	2,086
KRECS	971	486	608	1,010

Source: REA

- The smaller service providers lacked financial capacity to employ adequate staff and procure enough materials for connecting consumers.

Recommendations

1. Government through the Electricity Regulatory Authority (ERA) should harmonize the connection charges across the service territories. The subsidy on the No-pole and One-pole connection should not be selectively applied to only UMEME customers.

2. The ERA should reduce the cost of wiring by promoting the use of ready boards, and approve smaller but appropriate size of cabling for rural areas.

3. Future rural electrification projects should have consumer connections as a key deliverable.

4. The smaller service territory operators should be supported both technically and financially by ERA and REA.

5. The process of applying for connections can also be made easier if the service providers undertake outreach activities to the consumers in rural areas to sensitize them and guide them on the requirements for connection. According to WENRECO, this was observed to have worked well for them in West Nile.

References

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- Budget Monitoring and Accountability Unit Monitoring Report FY 2016/17.

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