



RURAL ELECTRIFICATION AGENCY

2019 GAINS TOWARDS UNIVERSAL ELECTRICITY ACCESS

A Word from the Executive Director



Godfrey Turyahikayo, Executive Director

During 2019, the Rural Electrification Agency (REA) continued to implement its mandate towards the goal of universal access by 2035, through main grid extension, establishment of mini-grids and a bigger drive on the access (electricity connections) agenda. REA is also supporting UNBS in the setting and observance of standards for stand-alone solar PV systems, whose acquisition still remains in the realm of consumer goods on the open market.

Two flagship projects were implemented whose main outcomes will be many more Ugandans accessing electricity services and a much greater geographical coverage of the electricity distribution network.

The first project was the implementation of the "free" Electricity Connections Policy which took off in earnest during the year, having been flagged off on 1st November, 2018. To-date, about 230,000 connections have been made to the main grid since takeoff as compared to an average of 70,000 in previous years.

The ECP is a result of efforts that REA made over a number of years to find a solution to accelerate electricity access. Through several pilot projects, REA eventually played a key role in the design of the Electricity Connections Policy (ECP) which provides for a free connection to single phase consumers. REA was mandated by Cabinet, through the provisions of the Policy, to be the lead implementing agency for the policy, considering that the largest population (85% of national population) targeted by the policy lives in rural areas.

The "Sub-county Headquarters Electrification Project" (also known as the "Bridging the Demand/Supply Gap through the Rural Electrification Program") also kick-started in July, 2019. To-date, the Contractor (TBEA of China) has mobilized works in about 20 districts and will have moved into all the 104 districts under the project by end of January, 2020. This project will connect over 600 sub-county head-quarters and town centres countrywide which are not yet linked to the grid.

Overall, grid extension continued to increase, reaching over 20,000 km of network coverage built by REA, as compared to 6,000km which was in existence under the defunct Uganda Electricity Board (UEB). This has resulted into the electrification of virtually all district headquarters, save for Buvuma, whose financing is being sought.

Beyond main grid extension, REA has intensified efforts to provide, in a faster way, electricity to communities which are deserving but are far from the main grid or are planned for grid electrification of more than five years from today. In 2019, 45 mini-grid projects were tendered out for development by private companies partnering with Government under a PPP arrangement. Procurement is in advanced stages right now. Over 600 such projects

have been identified in the Rural Electrification Master Plan and are planned for implementation over the next few years.

The Energy Access Scale-up Project

The activities aimed at accelerating access have been supported by a number of development partners, led by the World Bank. In addition to the World Bank, REA is currently implementing the access agenda with funding from other donors, including the European Union the African Development Bank, the German Development Bank (KfW) the Islamic Development Bank, the French Development Agency (AFD), GIZ-ENDEV and the Exim Bank of China.

Due to the promising success of the access programs implemented by REA prior and through the implementation of the Electricity Connections Policy, the World Bank decided to support the program through a new project, dubbed the Energy Access Scale-up Project (EASP). The project that is under preparation has a number of components to facilitate access to clean energy services (including clean fuels and efficient energy appliances), but with emphasis on electricity connections, which commands over 75% of the estimated US\$400 million (US\$350 loan and US\$50 million grant) financing. This is by so far the cheapest loan with only charges of 0.75%. Such loans are provided to developing economies like Uganda. By virtue of its mandate, REA is slated to implement the Connections Component (over US\$ 300 million) of this project.

According to the World Bank funding cycle, approval for this financing by the World Bank must be completed by end of June, 2019. This means that this massive scale up project to connect about one million (1 million) consumers may start implementation before the end of 2020, if the requisite processes are completed in time. Considering the large number of connections required to achieve universal access, this World Bank funding will act as a catalyst for other development partners to come on board and support the access agenda.

Challenges

Despite the progress made as explained above, the year was also a time of challenges. There were governance and operational issues, which tended to rock the REA boat, but they are being firmly addressed. At operational level, the main issue was the delay of some projects to meet implementation schedules. In particular, two projects stood out, i.e. the World Bank funded "Energy for Rural Transformation Project" (ERT III) and the African Development Bank funded "Uganda Rural Electricity Access Project" (UREAP).

This constraint of inadequate human resource was addressed by an agreement between REA and the World Bank to bring on board additional personnel, including a full-time project advisor, senior engineers, social safeguards specialists and two consultants. As a result, the project gained momentum in 2019.

While the planned ERT III grid extension component will not be completed in time, unless an extension is granted, the performance of the Connections component under the project has moved very well and has offered an alternative for the utilization of the money that was initially thought to be at risk of being returned to the World Bank. While the Connections component was initially allocated only US\$5.0 million, the implementation of the ECP sped up the absorption of the funds. The World Bank, as a result, decided to reallocate US\$ 17.9 million from the grid extension component. The connections made so far have already consumed this re-allocation and REA is discussing with the World Bank for another re-allocation of a further

US\$ 10 million. This means that within just over a year, the Connections component will have utilized close to US\$ 35 million.

Government and the World Bank already agreed that, in case there is no extension granted to the project, the balance of the funds will be channeled through the Connections component in good time to ensure the whole loan and grant are absorbed. Therefore, contrary to recent reports, there is no risk of money going back to the World Bank since an alternative mechanism to absorb it has been decided upon.

Under the UREAP, additional staff were recruited and in addition, project management teams were changed. All the six contracts in the first batch were cleared and are on course to finish implementation before the initial project closure time of 31st December 2020. However, the African Development Bank decided to extend the project for a period of two years and hence the project ends 31st December 2022. All the other procurements for grid extension in the second batch and the connections component are in their final stages of completion and will be implemented in good time following the extension. This project, therefore, is not under the risk of withdrawal of funds by the Bank or failure to absorb the funds in project time.

Re-organisation of Project Management Units

While the World Bank and REA agreed on re-organising the ERT III Project as already explained, it became clear that the management teams of the UREAP and the Sub-counties Electrification Project also needed to change because of the slow performance that was putting the projects at risk of not being delivered within their timelines. In July, 2019, I took the decision to re-organise and appoint new managers and establish more streamlined project management units to move the projects. So far so good in terms of moving the projects forward. We have hence seen a quicker turn around on the performance of the projects. The funders have as well appreciated the improvement in performance of the projects in 2019.

I have observed that some people have channeled complaints about the measures I took to reorganize project management through the print media and other influential circles in this country. Resistance to change is a natural phenomenon by those who feel they have lost control of the proceedings. But this resistance eventually dissipates. Most importantly, I would be failing in my responsibilities if I saw things going wrong and did not take corrective action.

We greatly appreciate the support that we have received from our development partners towards increasing access to electricity. These include; the World Bank, European Union, African Development Bank, the German Development Bank, Islamic Development Bank, French Development Agency, GIZ-ENDEV, USAID, Power Africa and the Exim Bank of China. We also appreciate the continued oversight support by the Ministry of Energy and Mineral Development. We as well are grateful for the partnerships with the Electricity Regulatory Authority and the utility companies across the country that include; Umeme, Kilembe Investments Limited, WENRECO, UEDCL, Kyegegwa Rural Electricity Cooperative Limited (KRECS), Pader Abim Multipurpose Electric Cooperative Society (PACMECS), Bundibugyo Energy Electric Cooperative (BECS), Kalangala Infrastructure Services (KIS). We look forward to a continued partnership in increasing electricity in Uganda and providing Electricity for All.

For God and My Country.

More than 200,000 Businesses and Households Connected to Electricity in the First Year of the Electricity Connections Policy

"We were using small solar lanterns that were easily broken by the children. With our new electricity connection, we have reliable power. The Children can study at night and we are hopeful that their academic performance will improve as a result," says Steven Onamuna, owner of Royal Palace Primary School in Tuba Parish, Tororo District.

Steven Onamuna's school is one of 223,058 businesses and households that have been connected to electricity under the Electricity Connection Policy (ECP).

Implemented by the Rural Electrification Agency (REA), the ECP was launched in November 2018 with a goal of increasing Uganda's electrification rate to 60% by 2027. The low rate of electrification was blamed on high connection charges and high costs of house wiring. To address these bottlenecks, the policy eliminated the connection fees for all single phase connections. Customers are required to only pay fees for inspecting their premises. Additionally, through marketing and promotional activities, REA is raising awareness of the benefits of electricity and addressing concerns associated with electricity.

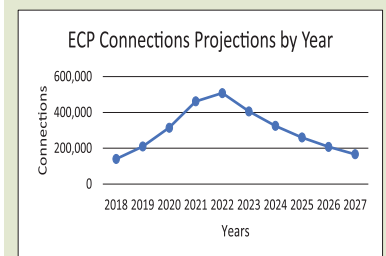
On the ECP, Mr Godfrey Turyahikayo, Executive Director REA, says

"The ECP has been a game changer for the electricity sub-sector. It's provision of free connections has accelerated the connection rate and we are confident that we will meet the set targets". We are currently procuring materials to connect close to half a million customers (benefiting over 2.5million Ugandans) in 2020.

This progress has been realized, in part as a result of collaborative efforts between REA, electricity service providers, the Ministry of Energy and Mineral Development (MEMD), the Electricity Regulatory Authority and development partners. Development partners have especially been instrumental in funding delivery of connections, sustaining promotion of the policy, and the development of the connections database.

Sustaining Momentum

The ECP has made considerable progress in its first year, including surpassing the projected target of 140,000 connections in 2019 as per the ECP Implementation Manual.



Sustaining this momentum hinges on several factors. One is raising awareness amongst the public on how they can benefit from the policy. It is also important to address some long-held misconceptions around electricity, particularly



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amongst rural communities, and to promote productive uses of electricity.

Secondly and very crucially is ensuring a steady stream of connection materials to deal with the growing number of connection applications. All stakeholders agree that this is the most crucial element to ensure that the ECP objectives are met. This is a concern for all the service providers; Umeme, because of the volumes of applications they were bound to receive, and the smaller service providers, because of their low cashflow. It is expected that the bulk procurement of connection materials by REA will ensure a steady stream of timely connections for applications received.

A third and equally pertinent issue is the availability of certified wiremen and technicians in the country to meet the anticipated demand. This is being addressed through several initiatives like the free training and certification courses

by the Private Sector Foundation Uganda and the more recently launched Pawa Kapo by the Electricity Regulatory Authority that are intended to bring onboard more certified wiremen.

"As with any new initiative, the Policy exposed several issues. We have been working with our stakeholders to carefully address them and applying appropriate solutions. And so far, we are seeing the desired results", says Mr Turyahikayo.

On the second objective of the ECP, which is increasing electricity demand by 500MW within 10 years, the policy will spur electricity consumption by promoting Productive Use of Energy (PUE). PUE involves the use of electricity for commercial purposes. A consulting firm to promote this is in the final stages of procurement and this will be strongly focused on in 2020 and beyond.



Steven Onamuna, owner of Royal Palace Primary School in Tuba, Tororo District. The school received a free electricity connection under the ECP

Construction Commences for the Sub County Electrification Project

To mitigate the issue of limited grid coverage, Government, through the Rural Electrification Agency (REA), is implementing the Bridging the Demand Supply Gap through the Accelerated Rural Electrification Programme (BDSGAREP). The BDSGAREP is an ambitious project to connect sub counties and other administrative centers in 104 districts to the National Grid. Over 600 sub counties, Town Councils and Divisional Headquarters are to be electrified under the project.

The programme, which will be implemented in 3 years, is expected to deliver 4000km of Medium Voltage Lines, 6000km of Low Voltage Lines and over 3400 distribution transformers. The BDSGAREP will also deliver over 170,000 electricity connections to households and businesses under the Electricity Connections Policy program.

REA contracted a Chinese firm, TBEA Co. Ltd to implement the USD212 Million project. Under the contract, TBEA is expected to subcontract 40 local companies in delivery of the entire project. To-date, they have

subcontracted 32 local companies under Labor and Transport arrangements. So far up to 7 subcontractors have already been engaged on ongoing construction activities. TBEA has also contracted 3 local wooden pole manufacturers who commenced production and pole delivery started October 2019.

REA gave conditional approvals for designs to enable construction to commence. As a result, TBEA has commenced construction works in November 2019 and work has since started in the following Districts in preparation for the official Project Launches: Kapchorwa, Madi Okollo, Kibuku, Kassanda, Isingiro, Kumi, Otuke, Omoro, Adjumani, Kyegegwa, Kiboga, Kibaale, Kanungu, Bundibugyo, Rakai, Bugiri and Manafa. The first consignment of imported construction materials from China arrived in Uganda in November 2019.

REA is preparing to officially launch the implementation of the programme in 18 districts across the country, with the Presidential Launch set for March 2020.



Linesmen Preparing poles for erection in Sironko District under the Sub County Electrification Project

Steps towards Universal Access: Energy for Rural Transformation - Phase III

The abbreviation "ERT III" is one that is synonymous with rural electrification. Financed by the International Development Association (IDA) of the World Bank, Energy for Rural Transformation Phase III (ERT III), as its name suggests, is the third round of funding for rural electrification in Uganda. The programme has, under it, several components that focus on the socio and economic growth of rural communities, however, the core purpose is to increase access to electricity for rural transformation.

The ERT programme was a birthed in 2001 following a Ministry of Energy study on how to connect rural areas to electricity using various solutions, including the main grid and off-grid means. The study which was published in 1999 was funded by the World Bank's Energy Sector Management Assistance Programme. The original ERT programme and its subsequent successors have been key to the progress made in Uganda's journey of rural electrification. The ERT III facility was approved in 2015 and is to be

implemented by December 2020.

Under this third phase of the ERT programme, the Rural Electrification Agency (REA) is to oversee the construction of 21 separate distribution lines totaling 1,850km. It is also projected to provide 150,000 free electricity connections under the Electricity Connections Policy.

To-date, 2 lines in central and mid-western Uganda are under construction and contracts for another 2 lines are to be signed by January 2020. The rest of the lines are under procurement and contracts are expected by April 2020. The grid extension component will not be completed by project closure December 2020.

The connections component of the project has made good progress and will be completed within the project timelines. About 100,000 connections have been made so far under the project. Any funds at risk of cancellation under the grid extension component will be reallocated in time to facilitate connections.

African Development Bank Extends Grid Expansion Project for 16 Districts

Access to clean and reliable energy has a reverberating effect on the socio-economic status of communities. Electricity opens up new areas of economic activity and improves service delivery. It is with this in mind that the Government of Uganda together with the African Development Bank (ADB) designed the Uganda Rural Electricity Access Project (UREAP). The project that is being implemented by REA, is intended to support the long and short-term development strategy and plan of the Government of Uganda and in particular phase 2 of the Rural Electrification Strategy and Plan (RESP-2). UREAP is financed by a \$100 million loan from the African Development Bank (AfDB) and a 11.2 million grant from the European Union – Africa Infrastructure Trust Fund (EU-AITF).

Due to the challenges emanating from both the Government of Uganda and ADB, the project closing date was extended from December 2020 to 2022. The project is expected to benefit sixteen districts of Nakasongola, Kiryandogo, Luwero, Alebtong, Amuria, Soroti, Mbale, Manafwa, Serere, Ngora, Bukedea

Kaliro, Iganga, Luuka, Gulu and Nwoya. This will see the construction of 1,147 km of medium voltage and 808 km of low voltage distribution networks, provide 160,000 last-mile connections and 25,000 ready boards to the grid for households, businesses and public institutions under the Electricity Connections Policy.

The different components of the project are at different stages. Line construction began July 2019 for the first lot of lines with more construction works to commence in early 2020.

Procurement for connection materials to connect about 100,000 customers is advanced stages. Materials are to be shipped in the country by April and connections will commence in May 2020. Materials to connect an additional 60,000 customers are under procurement and expected in the country in August 2020. It is anticipated that all components of the project will be implemented and completed by project closure December 2022.



Pole erection in Nakasongola under UREAP