

Impact of Covid-19 on the electricity supply industry

A primer to Uganda's case

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1 Introduction

The Covid-19 pandemic continues to ravage the world, causing economic and social disruption to individuals and businesses. As countries take measures to learn how to cope with the virus (in the absence of a vaccine(s)) and return to normality, the fallout from the pandemic will increasingly become clear.

Uganda, like all countries across the globe, implemented measures that aimed to protect citizens from infection, but also provide sufficient time for the health authorities to build capacity to fight the virus. The measures, announced by the President of the Republic of Uganda, were incrementally introduced, moving from closure of all educational institutions and a ban on mass gatherings in early March 2020 to a full lockdown of the entire country (with people working from home, save for essential service providers) and closure of international borders in April 2020. These guidelines and measures continue to have an impact on economic activity in Uganda and the Electricity Supply Industry (ESI) has not been spared, with far-reaching implications. Below, we discuss the likely impacts of the Covid-19 pandemic on the ESI.

2 Impact of the Covid-19 pandemic on the Electricity Supply Industry

2.1 Force Majeure Event with respect to Implementation Agreements, Licences and Power Purchase Agreements

A “Force Majeure Event” refers to any event or circumstance or combination of events and circumstances beyond the reasonable control of any party with material and adverse effects¹ on the performance of the obligations by a party under the agreement. “Force Majeure Events” are categorised to include epidemic or plague that extend beyond the affected party’s organisation and are widespread or nationwide. The occurrence of a Force Majeure, and its subsequent notification by the affected party to the other party to the agreement, provides relief from the requirement to perform certain obligations during the continuance of the Force Majeure event.

Following the outbreak of the Covid-19 pandemic in Uganda, and declarations of measures to curb its spread by the Government of Uganda, a total of nine power generators across the country declared Force Majeure events, ranging from the inability to have the required human resource expertise to perform obligations under the EPC contracts, failure to achieve their Commercial Operations Date and the inability to perform obligations under Power Purchase Agreements (PPAs) and/or licences. The country’s Transmission System Operator also declared a Force Majeure event on account of reduced demand for electricity, and therefore its inability to fulfil its obligations under the deemed energy clauses under the PPA.

2.2 Change In Law under the PPA and Implementation Agreement

Change in Law is defined to include enactment of new laws of Uganda, the repeal or modification or re-enactment of any laws of Uganda as of effect of the agreement and commencement of laws which did not exist at the date of the agreement.

The directives of the President and additional guidelines as issued by the different line ministries in Uganda aimed at curtailing the spread of Covid-19 were consequently published as regulations in the

¹ The events should be that the affected party could not have prevented, overcome or remedied in whole the event through exercise of due diligence and reasonable care and Prudent Utility Practice.

gazette under the Public Health Order Act, thus making them applicable laws in Uganda. Implementation of these guidelines has constrained the operations of licensees, reduced revenue and, in other cases, necessitated additional operational expenditures.

In the event that the ESI operators invoke the Change in Law provisions and apply for adjustments under Other Tariff Adjustment, justifying that additional and reasonable costs have been incurred on account of the regulations, there will be a need for an upward adjustment of the tariff to recover the additional reasonable costs.

The additional costs incurred by the licensees include: sanitisers, fumigation, protection equipment, internet connections and laptops to facilitate staff working at home, teleconferencing facilities for online meetings, and transport.

The additional costs have been incurred by all licensees (generation, transmission and distribution) in the ESI. The costs range from USD 26,316 per month to USD 210,000 per month.

Based on the above, the additional costs expected to be incurred by the ESI on account of invoking the Change in Law is estimated at US\$ 4.26 million for the period April-June 2020.

2.3 Reduced energy demand

In early April 2020, the Bank of Uganda projected severe contraction of the economy due to a combination of global supply chain disruptions, travel restrictions, measures to limit contact between people and a sudden decline in domestic demand for goods and services. The manufacturing and service sectors of the economy were particularly hit hard on account of (1) ban of air and road transportation and (2) restrictions on inflow of raw materials and a decline in external demand, resulting in overall scaling down of production.

Before the onset of the Covid-19 pandemic in Uganda, electricity demand was on a steady increase, with registered peak system demand of 728.7 MW in February 2020. Consequent to the imposition of restrictions and reduced economic activity (and whose recovery is predicted to start in the second half of FY 2020/2021), the electricity peak demand reduced by 19.2% to 588.5 MW² in April 2020.

Available statistics from the largest distribution utility³ in the country point to the effects of the Covid-19 pandemic on the ESI. Between the months of March and April 2020, there was a 24% decline in purchases of bulk electricity from the transmission company, a 29.1% decline in energy sales to customers, a 30.6% increase in energy losses and a 20.8% reduction in revenue collection. The picture is not different when compared with the same period in the previous year, with 17.0%, 20.5% and 26.6% reductions registered for energy purchases, energy sales to customers and revenue collection respectively in April 2020 when compared to April 2019. The energy losses on the other hand increased by 19.8% in April 2020 when compared to April 2019. The same trend is seen in the month of March 2020 when compared to March 2019, albeit at lower magnitudes.

The major consequences of the reduced demand are summarised as:

- a) The investment-related and Operation & Maintenance Costs of ESI operators are largely fixed and don't vary with units consumed. This necessitates either delaying the execution of such investments and/or reduced quality of supply or increasing the tariff to ensure full recovery of the additional costs;

² Data extracted from Uganda Electricity Transmission Company Limited (UETCL) System Summaries Database.

³ Purchases over 90% of the electrical energy from the sole transmission system operator.

- b) Most of the PPAs are on a Take and Pay framework. Therefore, an increase in the tariff will be required to meet these costs.

However, as the Government of Uganda announces measures to gradually re-open the economy, the available data indicates that the demand for electricity will respond in tandem. In the month of May 2020, there was an increase in energy purchases, energy sales to customers, revenue collection and a reduction in energy losses as compared to April 2020. Nonetheless, the impact of reduced demand shall filter through for some time in the ESI, including increased end-user tariffs.

2.4 Deemed energy obligations

The majority of the PPAs in the ESI are based on a Take or Pay framework, where the Transmission System Operator guarantees to buy or pay for energy from the generation plants. Deemed energy materialises in circumstances where (1) the power plant is commissioned before the transmission line/evacuation line is completed and (2) there is no demand for the energy being generated by the power plant. Both these risks are better controlled and managed by UETCL/Government.

Following the Covid-19 pandemic and reduction in energy demand as reported, there is a possibility of increase in deemed energy obligations. The estimated financial impact on account of reduction in energy demand and deemed energy obligations is estimated at USD 54.5 million for the period April-June 2020.

2.5 Tariff trajectory and revenue requirement

At the start of the calendar, the regulator sets assumptions for the determination of the base tariffs for the respective utilities. The base tariffs are adjusted every quarter for changes in the macroeconomic parameters of exchange rate, inflation, international price of oil and the changes in the dispatch from generators.

The economic recession resulting from measures taken by countries globally to control the spread of Covid-19 had adverse effects on the macroeconomic parameters. The reduction in demand for electricity is estimated to have caused an increase in the weighted average tariff by 6.2%. Such increments in the end-user tariffs are counter-productive in an economy that is looking for stimulus to support its recovery.

2.6 Reliability of electricity supply

The regulator recently introduced an incentive-based framework for the distribution utility in respect of the minimum standards of reliability and quality of electricity supply. The regulator further provided for a financial penalty/reward incentive to the Transmission System Operator with an aim of improving reliability and availability of the transmission network. The measures implemented to stem the spread of Covid-19 may limit the ability of these utilities to achieve the targets under the incentive frameworks, resulting from the inability to deploy contractors to carry out installations and maintenance works and import the required network equipment and accessories, and a delay in the implementation of the approved investment projects.

This may lead to reduced reliability of power supply, constrained and unserved demand and reduced productivity for electricity consumers. The financial impact of unreliable power supply is estimated to be USD 5.45 million for the period April-June 2020.

2.7 Customers' connections

In an effort to increase access to electricity, the Government of Uganda launched the Electricity Connection Policy (ECP) with an aim of making not less than 300,000 customer connections in a year. Distribution licensees suspended the receipt, processing and installation of new connections on account of limited movements of non-essential workers, limited funding to carry out connections, inability to verify and subsequently invoice the Government of Uganda for the installed connections, and the inability to procure connection materials. Even before the suspension of the customer connections, utilities were faced with a backlog of applications for connections, which in some cases resulted in self-connections, exacerbating the commercial losses on the distribution network.

2.8 Monitoring and ensuring compliance

The regulator is required to enforce directives and ensure compliance with the terms and conditions of the licences issued to utilities as provided for under the law. This requires the regulator to conduct physical visits to licensee premises and installations, document verification and verification of actual existence of network assets, and holding engagements with technical officers of respective licensees.

In complying with the guidelines issued to avert the spread of Covid-19, including social distancing and travel restrictions, the regulator halted the planned compliance inspections and verification visits. The delayed monitoring and ensuring compliance to the licence terms and conditions may: limit the ability to identify and prescribe remedial measures to areas of non-compliance in a timely manner; hinder the ability to determine the value for money of investments carried out by licensees and their subsequent decision on qualifying for a return on investments in a timely manner; and delay the reconciliation of investment costs for the purpose of determining tariffs.

3 Conclusion

In relative terms, Uganda has not faced the brunt of the Covid-19 pandemic, and has, as at August 2020, registered four deaths from the illness – unlike other countries where it has wreaked havoc in health systems and social patterns. However, the economy and its sectors has faced the impact of the measures taken by the Government in an effort to stem the spread of the pandemic.

The ESI has had its share of the impact (and the extent is yet to be fully established), which has changed the fundamentals of the sector. The reduced demand for electricity, increasing energy losses and reduced collections, among other regulatory performance parameters that are likely not to be achieved, will have effects that will go beyond the current times.

However, the period has also provided an opportunity for the sector to test its resilience and ensure continuity of supply in the face of adversity. Electricity as a factor of production will play a big role in supporting the recovery of the economy and the ESI must position itself in a sustainable manner to deliver its contribution.