POLICY BRIEF

UGANDA:
NEW DEVELOPMENTS IN THE ELECTRICITY
AMENDMENT ACT, 2022

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The Electricity (Amendment) Act, 2022 (the Act) of Uganda was enacted into Law in May 2022 to amend certain provisions of the Electricity Act (the Principal Act) of 1999. The amendment was necessitated by certain inconsistencies in the law including: lack of flexibility in implementation of the Principal Act, lack of streamlined operations of the electricity sector, failure to effectively address issues relating to the responsibilities of institutions, inadequate compliance enforcement mechanisms, insufficient penalties for electricity theft and, vandalism of electrical facilities, etc. Furthermore, all purchase of electricity generated in Uganda is carried out by a single entity whose network does not cover the entire country. In addition, successor companies to the Uganda Electricity Board, are mandated to report to the Minister for Finance as opposed to the Minister for Electricity, thereby posing significant bottlenecks to the management of electricity throughout the country.

This Policy Brief seeks to highlight relevant provisions of the Amendment law and their potential implications for the Ugandan electricity sector. The Amendment Act of 2022 provides the following amendments to certain clauses of the Principal Act, in the following sub-headings below:

Gender Equality

The Act amends section 5 of the Principal Act which relates to the appointment of ministers. It promotes gender equality by stating that one-third of the members of the Ministry must be women. Gender perspective is a globally recognised issue, considering that some issues and constraints related to energy projects success are gender specific..As such, this is a welcome development in promoting gender main streaming in the energy sector of Uganda.

• Nomenclature of Transmission and Distribution Companies

In section 10(a) of the Principal Act, transmission and distribution companies will now be referred to as licensees and the Authority is now charged with the responsibility of reviewing and approving the rates and charges of licensees.

In addition, the Authority is no longer responsible for advising the Minister regarding the need to embark on electricity sector projects. This development creates independence of roles/responsibilities of the Minister and the Authority, thereby creating a single point of responsibility for the actions or inactions of the Minister in undertaking electricity projects. It also diminishes the influence of the Minister on the Authority regarding electricity projects, thus eliminating bureaucratic undue influence on electricity projects which translates to a smoother project implementation process for project developers and other key stakeholders in terms of time and costs.

Feed-In Tariffs

Section 11- The new Act is forward looking in its provisions in that it prescribes that one of the functions of the Authority will be to prescribe standardized feed-in tariffs for renewable energy systems generating up to a maximum capacity of 50MW or any other capacity as determined by the Authority. A standardized feed in tariff which is characterized by a standardized purchase price could ensure profitability of renewable based electricity generating plant investments and a stable market for generated electricity which in turn allows for bank ability of the projects in terms of securing finance.

However, examples from other jurisdictions such as Spain reveal that the actors may not have credible information upon which to fix the initial tariff which could either lead to excessive profits by investors in the long run or under-pricing of the electricity. FITs have also been criticized for not conforming to the principle of competition as the idea of 'fixing' tariffs is associated with state-dominated, monopolistic energy markets. Fixing tariffs has in addition been criticized for hindering technological innovation/learning. Nonetheless, tariff degression and frequent assessments of tariff levels can help to address these issues.

• Energy Policies and Plans

Section 17 of the Principal Act is amended to read that the Minister is now vested with the responsibility of developing energy plans and policies for coal, renewable energy, and electricity. The assignment of this responsibility to the Minister provides a clear point of accountability for failure to act in this regard. It also provides an opportunity for Uganda through the Minister to develop its renewable energy sector and align same with global climate goals, considering the sector dynamics within Uganda. Nevertheless, the Minister will need to take into consideration the resource priorities in the energy mix in driving energy access within the country.

Funds of the Authority

According to section 22 (c) in the new Act, one of the sources of funds of the Authority obtained from generated electric energy, has now been increased from 0.3% to 0.7%. It is believed that 0.3% was insufficient to enable the Authority effectively fulfil its mandates. In addition, the Authority can be funded by income generated from services it renders to third parties. The increment to 0.7% seeks to ensure that the Electricity Regulatory Authority has adequate funds to perform its key mandate of regulating the electricity industry.

Invitation to License Applications

In the new Act, Section 32 has been amended to read that invitation to license applications by the Authority will not be conducted without due consultations with the Minister. This involvement of the Minister in the invitation to license process creates regulatory uncertainty in the sector. It brings to question the independence of the Authority, given the likely influence of the Minister over the affairs of the Authority. This can create bottlenecks in the licensing processes in terms of delays. Although in general the influence of the Minister has been diminished as it relates to electricity projects, it is worthwhile for the Authority to be completely independent regarding the processes involved in undertaking such projects, of which licensing exists as one of the key processes.

Nevertheless, although one may argue that the involvement of the Minister may allow for checks and balances with the Authority, to ensure that invitations to license applications are being put out for the right reasons, however, it could also result in undue delays in acting or create bottlenecks where there is a dissent on the Authority's decision to make invitations for license applications.

Furthermore, the Act proposes that ERA be empowered to impose fines on licensees for the breach of terms of the license. The Act seeks to require licensees to develop dispute resolution procedures to address complaints from their customers before these are referred to the Tribunal.

Classification of Licenses

Section 37 now provides that; licenses shall be classified according to the size and technology to be used or the market segment to be served by the licensee. This development allows for tariff differentiation according to license classes. The size and type of technology adopted in electricity generation has an impact on the overall cost of a project. Classification of licensees according to technology and size, may also enable the Authority fix tariffs according to license classifications, thereby taking into consideration the different cost range(s) and the need to ensure returns on electricity project investments. Furthermore, classification of licensees according to technology could encourage large scale utilisation of renewable sources of energy in a society that is enlightened on the environmental cost of non-renewable sources of energy. This is because enlightened consumers of electricity tend to gear towards electricity producers whose source of energy is considered environmentally friendly. License categorisation further influences the enlightened electricity consumer's decision of a preferred electricity supplier based on the supplier's license category which in effect reflects the environmental consideration of the electricity producer. This is however, based on the assumption that a competitive electricity market is in place.

Appeals

The new Act makes amendments to section 44 in the Principal Act which provides for Appeals to the decision of the Electricity Tribunal. It now places a time limit after which appeals against the decision of the Tribunal shall be statute barred and unattended to. Thus, appeals must be carried out by the licensee within 28 days of the receipt of the Tribunal's decision.

System Operator

Section 55 (g) is repealed and as such, the System Operator is no longer obligated by statute to publish standardized tariffs based on avoided cost of the system for sales of renewable electricity up to a maximum capacity of 20 Watts, in consultation with the Authority. Avoided cost refers to the incremental cost to an electric utility or capacity which but for the purchase from the qualifying facilities, such entity would generate itself or purchase from another source. This elimination of the system operator's obligation to publish standardized tariff based on avoided cost of system for sales of renewable electricity gives room for flexibility in billing for net metering, based on applicable tariff determination approaches in line with regulatory requirements.

Supply of Bulk Electricity

Section 56 (3) is added to the provisions of the Principal Act, in that the Authority may now prescribe terms under which a licensee may supply electricity in bulk to a holder of a distribution license, transmission license or to a specified class of customers. The Principal Act allowed the Electricity Regulatory Authority to designate a bulk supplier to transmit and sell electricity in bulk to distribution and sale companies whose terms will be specified in the sales licence. The new Act, however, gives the Authority the power to prescribe circumstances under which a generation licensee may supply bulk electricity to a distribution licensee, transmission licensee or directly to customers. This development eliminates monopoly in the Ugandan electricity supply market and is a step towards introducing competition into the market. Competition will in turn give customers greater control over their choice of

electricity supplier and their source of electricity. With more actors in electricity supply, the price of electricity is expected to become more affordable.

Companies that engage in the distribution of electricity must report to the Electricity Regulatory Authority on the dynamics of their electricity distribution. This provision was not present in the Principal Act. The new Act does not limit the distribution of electricity to only bulk supply licensees, but it opens bulk supply of electricity to generation and transmission licensees. The Act also ensures that this process of bulk supply shall be fair, open, and competitive. It is projected that this new provision has brought about changes to the single buyer model of Uganda's Electricity sector. This is because the market has been somewhat liberalised, as distribution, generation and transmission licensees can now sell electricity in bulk.

Generation License

The new Act provides in section 75(7), that the holder of a generation license, as opposed to the holder of a hydropower generation license in the Principal Act, must pay the district local government in which the renewable energy generation station is situated, a royalty agreed upon by the licensee and the district local government. In other words, there is now a requirement for all renewable energy projects including wind, biomass, peat, and solar to pay royalties. The Electricity Regulatory Authority is also given the authority to prescribe the maximum royalties payable.

Requirement for Distribution Licence

Section 75 (11) provides that as a requirement for applying for a distribution licence, the licensee must include a net metering plan for all customer categories. Section 75(12) provides that the application will be granted after all the requirements of net metering has been fulfilled. Net metering is a system of control that allows homeowners and energy consumers to monitor and control the amount of energy usage at various hours of the day. Net metering also allows commercial customers who generate their own electricity from solar to feed excess electricity into the grid. This is a development with good intentions as it promotes energy efficiency among energy consumers while promoting electricity access by turning energy consumers to prosumers.

A present challenge with electricity fed into the Transmission system in Uganda is low domestic power demand because of the limited reach of the Transmission system. As such, the impact of individual consumers feeding excess power into the grid may pose as a challenge, where the transmission network does not extend to unconnected areas. Therefore, while the requirement for a net metering plan is futuristic, it may deter potential investors from investing into the electricity distribution value chain which may in effect impede the development of the market into a competitive electricity market.

Furthermore, net metering may be faced with the challenge of fluctuation and imbalance in voltage, given that solar energy produced by photovoltaic system is largely dependent on the availability of sunlight. Voltage fluctuations based on sunlight availability can have an adverse impact on the existing transmission network such as overheating of the power lines. Systems and measures will need to be put in place to address the intermittency associated with solar generated power.

Reviewed Punishment Rates

The Amendment Act has notably increased the rate of fines and imprisonment, which is commendable because not only are these punishment rates now in conformity with the country's current economic clime, but they have also been made more severe and will increasingly deter people from committing the applicable offences.

For example, the Amendment Act increases the punishment rates – both fines and imprisonment terms – for licensees who contravene the terms and conditions of their licence. Through the Amendment Act, the former provision in Section 83 of the Principal Act is replaced with a fine not exceeding ten thousand currency points for any licensee who fails to comply with any terms or conditions of the licence without lawful excuse; and in the case of a continuing contravention, an additional fine of five hundred currency points for every day or part of a day during which the offence continues. This is more than, in comparison to Section 83 which originally provides for a fine not exceeding one hundred currency points and a further fine not exceeding ten currency points.

Also, the Amendment Act has increased the punishment for Damage to public lamps from "five currency points or to imprisonment for a term not exceeding one year or both", to "twenty thousand currency points or imprisonment not exceeding ten years or both."

Section 86 of the Principal Act which is on Diversion of Energy and Damage to Supply Lines has also seen its punishment rate increased from "thirty currency points or to imprisonment for a term not exceeding three years or both", to "twenty thousand currency points or imprisonment not exceeding ten years or both."

Section 89 of the Principal Act which prescribes a general penalty for offences which do not have assigned penalties under the Act has now been ascribed with a fine not exceeding fifty thousand currency points or imprisonment not exceeding twelve years or both and in case of a continuing offence, to a fine not exceeding five hundred currency points for every day or part of a day during which the offence continues

New Offences

The Amendment Act has created new offences that did not exist in the Principal Act, covering more grounds for claims which have arisen over the years but may not have been adequately pursued because the Principal Act had not provided for it.

For instance, the Amendment Act inserts immediately after Section 83 of the Principal Act, '83A. Offences by body corporate' and '83B. Power of Authority to impose a fine'. 83A provides that where an offence committed by a body corporate is proved to have been committed with the consent or connivance of or is proved to be attributable to any neglect on the part of a director, manager, secretary, or other similar officer of the body corporate or any person who was purporting to act in any such capacity, he or she, as well as the body corporate, commits that offence and is liable to be prosecuted and punished accordingly. This did not exist in the Principal Act and is thus, a commendable addition to the Act. This provision now expressly ensures that corporate bodies in the power sector are held to a higher standard in their operations, as they can now be prosecuted and punished for specified offences.

Also, the Amendment Act now inserts after Section 85 of the Principal Act, the offence of interference with meters, works or public lamp and mandates a fine not exceeding fifty thousand currency points or imprisonment not exceeding twelve years or both as punishment for whomever commits said offence.

The Amendment Act also includes right after Section 86 of the Principal Act, offences relating to theft of electricity.

• Increased powers for the Electricity Regulatory Authority (ERA)

The Amendment Act added 83B which falls under Section 83 of the Principal Act. 83B gives the regulatory authority the power to impose fines not exceeding five thousand currency points upon being satisfied that a licensee has contravened or is contravening any term or condition of a licence; or has failed or is failing to achieve any standard of performance prescribed under the Act, regulations, or a licence.

Immunity

The Amendment Act inserts immediately after Section 112, 112A which provides that no action, suit, prosecution, or other proceeding may be brought or instituted personally against a person who is or was a member of the tribunal or employee of the tribunal in respect of any act done or omitted to be done in good faith in the discharge of any function under this Act. This is a newfound addition to the Principal Act and creates a framework for protecting officers of the power sector in the discharge of their duties. This may be perceived as a welcome addition as it provides employees of the Electricity Disputes Tribunal, freedom from frivolous suits. However, a blanket immunity may not be the best approach, because it also creates opportunity for abuse and lack of accountability for the actions of employees, particularly where an offence has been committed by the employee in the course of duty.

• Dealing with Customer Complaints

The Amendment Act inserts immediately after Section 118 of the Principal Act, Section 118A that speaks to procedures for dealing with customer complaints. The new section provides that a person aggrieved by a decision or action of a licensee may apply to the licensee for redress. The licensee must have established procedures for dealing with complaints from its consumers or potential consumers of the licensee's service and these procedures must be approved by the Authority before being published by the licensee in the manner prescribed by the Authority.

This is a welcome addition compared to the provision in the Principal Act which leaves customer complaints redress and appeals to the ERA and the Electricity Disputes Tribunal. Customers can now have their grievances addressed at the grass root level first before appealing to higher authorities. This is a better organizational framework for the sector's dispute resolution processes and can make disputes get resolved faster, considering that an additional mechanism has been created for that purpose.

Conclusion/Recommendations

The Ugandan Electricity (Amendment) Act is a welcome development with key provisions including the expansion of the recognised mix of renewables and provision for the utilisation of feed in tariffs, net metering provisions, penal repercussions for electricity theft and vandalism, etc. However, some of these provisions such as net metering may be premature for the current state of the Ugandan Electricity Market and may cause more harm than good to the sector. Nonetheless, effective implementation will be key to realising the potentials of the overall provisions of the Amendment Act.

To effectively harness the potential of the Amendment Act, the following is recommended:

- In fixing feed-in-tariffs there should be a clear balance between employing credible means of fixing the feed-in-tariffs to ensure that excessive profit is not made at the expense of consumers and the application of tariff degression and frequent assessments of tariff levels which should be strategically undertaken.
- The tightening of penalties for electricity theft and vandalism should be followed up by investments in and installation of adaptive time-series recurrent neutral network(RNN) to effectively identify abnormal electricity theft behaviour as novel ways of electricity theft are likely to spur up with the new development.
- Further policies, action plans and regulatory instruments should be developed to harness the potential of key areas of the Act such as: renewable energy utilisation, net metering, feed in tariffs, and license classifications, etc.

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- 2. Elizabeth Cecelski, 'The role of Women in Sustainable Energy Development' (2000) https://www.nrel.gov/docs/fy00osti/26889.pdf>
- D. Jacobs & B.K Sovacool, 'Photovoltaic Solar Energy' (2012) Comprehensive Renewable Energy
- 4. ibid
- 5. ABM Advocates, The Electricity (Amendment) Bill, 22nd April, 2022 available at https://www.abmadvocates.com/the-electricity-amendment-bill/#:~:text=The%20Electricity%20(Amendment)%20Bill%20was,operations%20of%20the%20electricity%20sector.
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- 7. Feed in Tariffs as a Policy Instrument for Promoting Renewable Energies and Green Economies in Developing Countries
- 8. Ibid
- 9. Conservative Energy Future 'A brief Introduction to Net Metering' < https://www.conserve-energy-future.com/what-is-net-metering-works.php
- 10. ibid
- 11. Makele University Undergraduate Dissertation Repository, "Challenges facing the Transmission of Electricity in Uganda: Case study of Ugandan Electricity Transmission Company Limited" (2019) http://dissertations.mak.ac.ug/handle/20.500.12281/6684?show=full
- 12. Amplus Solar, "Challenges in Net Metering" (2017)
- 13. ibid
- 14. A recurrent neural network (RNN) is a special type of an artificial neural network adapted to work for time series data or data that involves sequences. It can retain past or historic information to forecast the future values. It can be used to detect inconsistencies in electricity usage information and by so doing detect possible cases of electricity theft or meter by-pass.