



MINIGRID POLICY AND BUSINESS LANDSCAPE: AN IN-DEPTH ANALYSIS



UGANDA REPORT

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Acknowledgments

This report was developed by the Africa Minigrid Developers Association (AMDA) as part of an ongoing effort to inventory the current policies, regulations, and import duties affecting Distributed Renewable Energy Systems and Minigrids in key energy access deficit countries across Eastern and Southern Africa.

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We extend our deepest gratitude to the diverse stakeholders who contributed invaluable data and insights that shaped this report. These stakeholders include minigrid developers, sector utilities, the regulatory body, and the revenue authority.

Abbreviations

- AEO – Authorised Economic Operators
- AMDA – Africa Minigrid Developers Association
- BECS – Bundibugyo Electricity Cooperative Society
- CIF – Cost, Insurance, and Freight
- COMESA – Common Market for Eastern and Southern Africa
- DRE – Distributed Renewable Energy
- EAC – East African Community
- ECP – Electricity Connections Policy
- EP2023 – Energy Policy for Uganda (2023)
- ERA – Electricity Regulatory Authority
- EPP – Export Promotion Program
- E.P.P.O – Export Promotion Program Office
- EUL – Eskom Uganda Ltd
- EWURA – Energy and Water Utilities Regulatory Authority
- IPP – Independent Power Producers
- ITA – Income Tax Act
- LPG – Liquefied Petroleum Gas
- MEMD – Ministry of Energy and Mineral Development
- MW – Megawatt
- NEMA – National Environment Management Authority
- NIA – Notice of Intended Application
- NOA – National Oil and Gas Authority
- PPA – Power Purchase Agreement
- PWD – Persons with Disabilities
- REA – Rural Electrification Agency
- REP – Renewable Energy Policy
- SPP – Small Power Producers
- TIN – Tax Identification Number
- UEB – Uganda Electricity Board
- UEDCL – Uganda Electricity Distribution Company Ltd
- UEGCL – Uganda Electricity Generation Company Ltd
- UETCL – Uganda Electricity Transmission Company Ltd
- UGX – Ugandan Shilling
- UMEME – Uganda's main electricity distribution company
- URA – Uganda Revenue Authority
- VAT – Value Added Tax
- WENRECo – West Nile Rural Electrification Company

Introduction



Photo Credit: NOA Uganda

Background Study

- The growing need for sustainable and reliable energy solutions in Africa has spurred significant interest and investment in Distributed Renewable Energy (DRE) systems, particularly minigrids. Minigrids, which are localized power networks that operate independently from the national grid, present a viable solution to the energy access challenge in remote and underserved areas. They leverage renewable energy sources, such as solar, wind, and hydro, to provide consistent and environmentally friendly power.
- Understanding the landscape for establishing minigrids across various African markets is crucial for stakeholders, including policymakers, investors, and developers, who are keen to expand energy access. This study aims to provide a comprehensive understanding of the policies and regulations that govern minigrids, the tax implications such as import duties and other relevant taxes involved in operating a minigrid, and the overall business environment that influences the establishment and operation of minigrids in different African countries
- This study took into consideration 13 countries across Eastern and Southern Africa. These include Kenya, Tanzania, Uganda, Ethiopia, Rwanda, Burundi, South Sudan, Somalia, Democratic Republic of Congo, Malawi, Zambia, Mozambique and Madagascar.

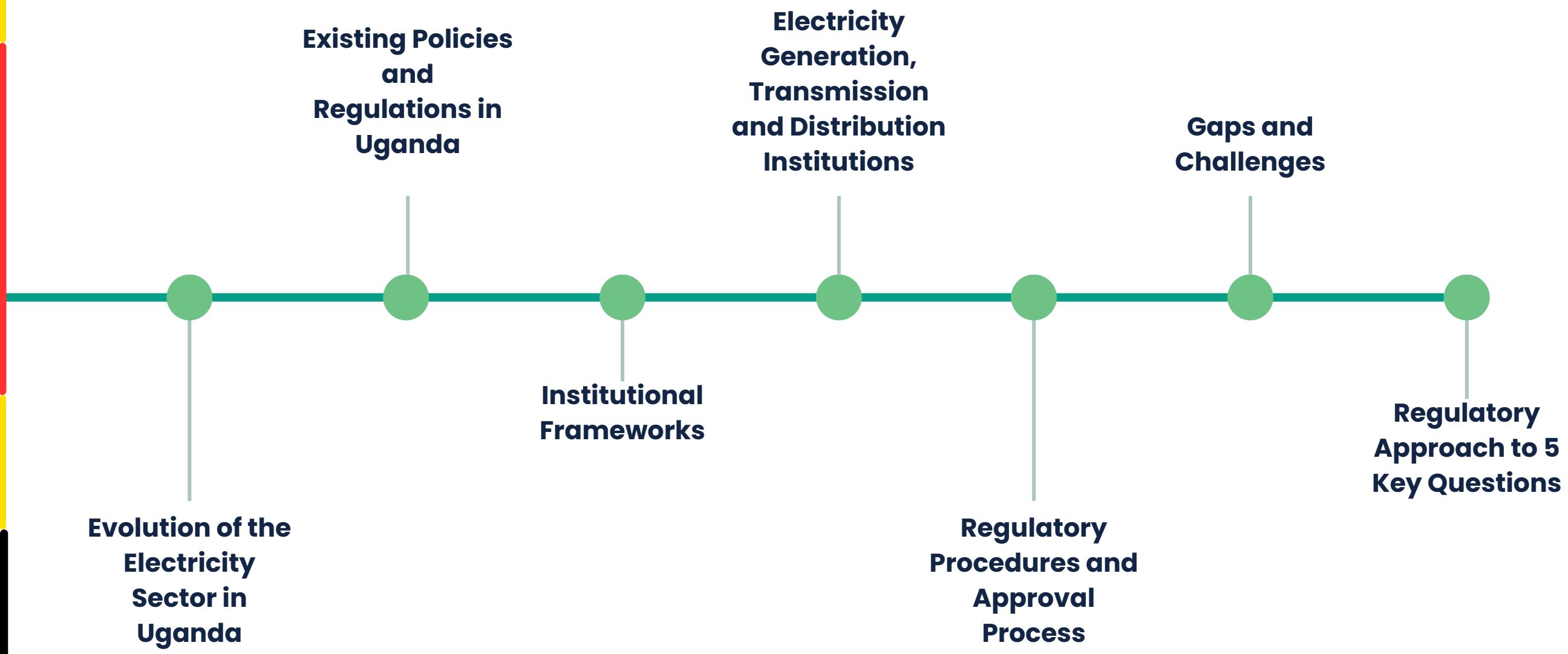
Objective Overview

- The primary objective of this study is to explain the regulatory and policy frameworks that impact minigrid development in Uganda. By offering detailed information on the current minigrid policies and regulations, we aim to equip stakeholders with the necessary insights to navigate the complex regulatory landscapes
- Additionally, the study examines the relevant import duties and taxes that affect the financial viability of minigrid projects.
- Finally, it delves into the business processes and environments that influence the setup and operation of minigrids, providing a holistic view of the market conditions across various African countries.
- By addressing these objectives, this study aims to contribute to the strategic planning and decision-making processes of entities involved in the minigrid sector, ultimately facilitating the expansion of minigrid renewable energy access across Africa.

Study Methodology & Data Resources

- The methodology used in the study involved desk review through an extensive literature review of the policies, regulations and taxation acts applicable to DREs. Various stakeholders including developers, MEMD, ERA, NOA, Equatorial Power and URA, were interviewed.
- This was followed by a review and analysis of relevant documentation, information gathered and data request letters shared, received and availed from the stakeholders. There was a challenge with some stakeholders who didn't have all the information readily available.

Regulations & Policies



Regulations & Policies

Evolution of the Electricity Sector in Uganda

Early Development (1900s – 1940s)

1908 – Electricity powered by diesel generators was introduced in Uganda by Hesketh bell, Uganda’s second Commissioner and first Governor. Bell brought a generator to light his home which was then the administrative capital of Uganda.

1909 – Another generator was imported to Uganda to light Uganda European Hotel on Nsamizi Hill at the Present day State House in Entebbe.

1924 – Uganda Sugar Factory built its first thermal station to generate enough electricity for the factory, replacing the diesel generators, which were deemed expensive.

1948 – The Uganda Electricity Board, a statutory corporation was established with the sole right to generate, distribute, and license generation or transmission of electric power in Uganda with CR Westlake as the first Chairperson.

Expansion and Initial Reforms (1954s – 2004s)

1954 – Queen Elizabeth II commissioned Owen Falls Dam, a 150 MW hydro-electric scheme on 29 April 1954. This led to the inception of Uganda Electricity Board (UEB).

1957 – Consultants recommended for the construction of a dams at Bujagali Falls and two others downstream of Bujagali.

1999 – The Uganda Electricity Board was unbundled into three entities: the Uganda Electricity Distribution Company Ltd, the Uganda Electricity Transmission Company Ltd, and the Uganda Electricity Generation Company Ltd. This was to improve efficiency and attract private investment.

2002 – Eskom Uganda Ltd (EUL) was incorporated on 22nd November 2002, and was awarded a concession to operate and maintain Nalubaale and Kiira Hydro Power stations in Jinja for 20 years.

2003 – EUL took over operations and maintenance of the complex from Uganda Electricity Generation Company Ltd (UEGCL) on 1st April 2003.

2004 – Umeme Ltd was formed, Uganda’s main electricity distribution company licensed to distribute and supply electricity to customers. This mandate involves; operation, maintenance and upgrade of electricity distribution infrastructure, electricity retail and provision of related services

Modern Developments (2005s – 2025s)

2005 – UEDCL awarded a 20-year concession for distribution and retail of electricity to the Ugandan energy distributor Umeme.

2015 – The government, through the REA, and with support from development partners like the World Bank and GIZ, scaled up support for solar home systems, minigrids, and productive use of energy in off-grid communities.

2016–2019 – Uganda became a leading market in sub-Saharan Africa for pay-as-you-go (PAYGo) solar systems, with companies like Fenix International, M-KOPA, and SolarNow expanding rapidly.

2020 – The Uganda Energy Access Scale-Up Project (EASP) was initiated, aiming to accelerate off-grid solutions including minigrids and standalone solar.

2025 – The Government of Uganda officially took over the management and distribution of electricity, following the conclusion of Umeme Limited 20-year concession. As of March 31, 2025, the electricity distribution assets have been reverted to UEDCL

Regulations & Policies

Existing Policies and Regulations in Uganda 1/2

The Electricity Act 1964

- This was the first significant piece of legislation for managing the electricity sector in Uganda post-independence
- The Act established the **Uganda Electricity Board (UEB)** as a fully state owned parastatal to oversee electricity generation, transmission and distribution.

The Energy Policy for Uganda, 2002

- The energy policy for Uganda was developed in 2002 to sustain the economic growth the country had achieved and to ensure widespread access to affordable modern energy
- The main policy goal was to meet the energy needs of Uganda's population for social and economic development in an environmentally sustainable manner.
- By making the power sector financially viable to perform without subsidies from the government budget

Renewable Energy Policy for Uganda, 2007

- The policy sought to increase the use of modern renewable energy, from the current 4% to 61% of the total energy consumption by the year 2017.
- It was passed by Cabinet on the 29th March 2007.
- This policy provided the foundation for promoting off-grid solar and minigrid systems in Uganda.

Uganda National Climate Change Policy, 2015

- The policy adopted in April 2015 supports the Renewable Energy Policy (REP) to accelerate clean energy technologies and cut greenhouse gas emissions.
- It promotes alternative fuels to reduce biomass reliance, fostering sustainable energy access amid climate change.
- The policy advocates for water resource regulation to ensure steady hydropower production and diversifies energy sources by promoting solar, biomass, mini-hydro, geothermal, and wind energy.
- It encourages energy-efficient solutions such as firewood cook stoves, solar cookers, and LPG cookers.

Regulations & Policies

Existing Policies and Regulations in Uganda 2/2

Electricity Connections Policy (ECP) (2018–2027)

- The primary goal of the policy is to increase electricity access and provide cleaner energy for Ugandans, addressing the major obstacles that have hindered electricity access expansion.
- The ECP aimed for 26% rural access by 2022, as outlined in the Second Rural Electrification Strategy Plan, and a 30% national coverage target by 2020, as set in the Second National Development Plan.
- After 2020, the policy aimed to accelerate access to reach 60% by 2027, after which it will be revised to enable achievement of the 80% Vision 2040 connection target

Revised Energy Policy for Uganda (2023)

- This policy (EP2023) replaces the Energy Policy for Uganda, 2022.
- The EP2023 shall build on the achievements made in the sector and also address the following:
- Need for increased energy supply and access to Uganda's fast-growing population and industrialisation.
- Emerging trends and technologies in the energy sector.
- Energy demand requirements and utilisation in a sustainable manner.

Electricity (Amendment) Act 2022

- The amendment Act (7 June 2022) empowers ERA to prescribe standardized feed-in tariffs for renewable energy systems up to 50 MW.

Through this Act,

- The fund formerly focused on rural electrification is now called the Electricity Development Fund, and its purpose has broadened to the overall development of the electricity supply industry. This may affect how funds are allocated between grid extension and off-grid projects
- All distribution licence applications must include net metering plans for all customer categories enhancing business case for the DRE.
- ERA now can set terms under which licensees (including generators) may sell directly to distributors or customers, not just bulk suppliers. Creating opportunities for minigrid developers to sell directly to end-users.

Guidelines for Solar Minigrid Investors in Uganda (Projects Up to 2MW) 2024

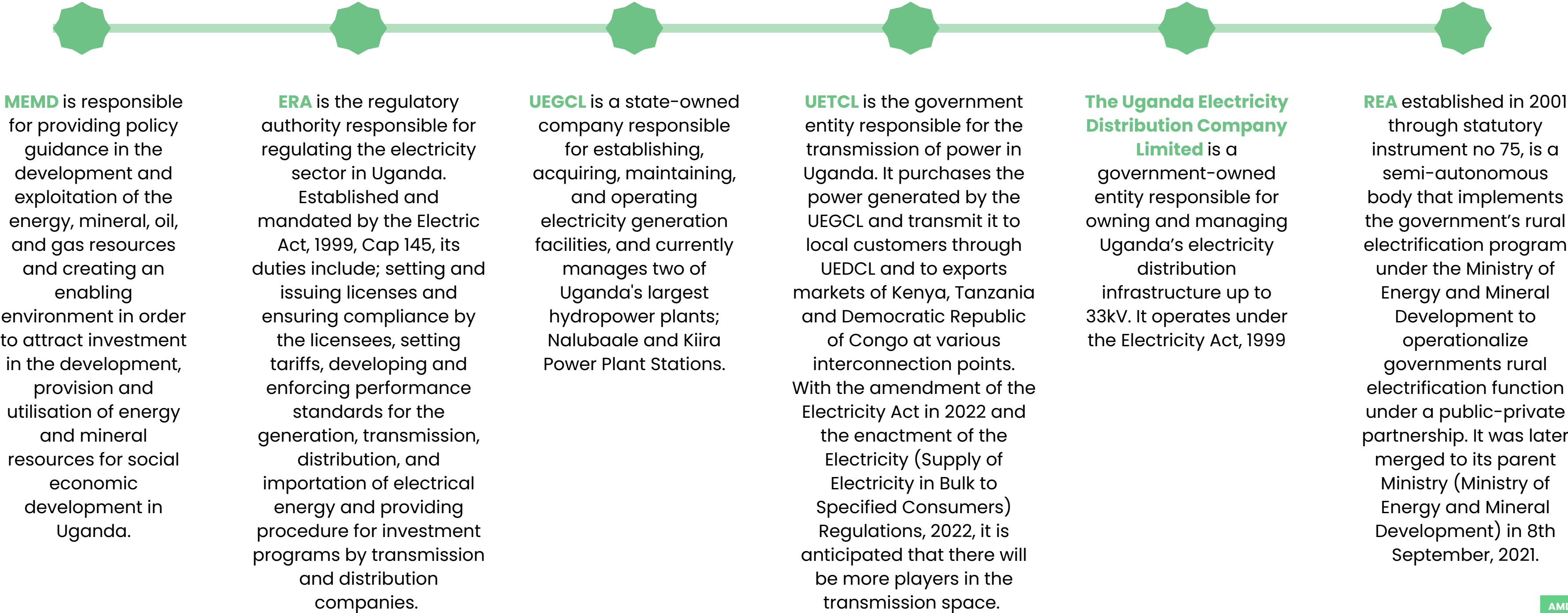
It guides investors through the country's regulatory landscape and institutional framework, providing an outlook of the national minigrid sector, and delineates in detail the steps that both local and foreign investors are to undertake to establish a solar minigrid project in the country, from company registration to project commissioning.

The guidelines provide a clear walk-through for investors opting to enter the market both through the solicited (tender-based) and unsolicited project pathways. Through the Unsolicited Project Pathway, minigrid developers have the possibility to autonomously explore the channel of implementing a project of their interest.

In solicited Project Pathway, project bid is submitted by the developer in response to a centrally organized tender

Regulations & Policies

Institutional Frameworks



1. [MEMD](#) [2. EWURA](#) [3. EDT](#) [4. Power Guide Uganda](#) [5. Renewable Energy Investment Guide](#)

Regulations & Policies

Electricity Generation, Transmission and Distribution Institutions

Electricity Regulatory Authority operates in electricity generation, transmission, distribution, supply and cross border electricity trading activities

Generation

The generation segment has a combination of the government of Uganda-owned power plants, independent Power Producers (IPPs), and Public-Private Partnership (PPPs). **Electricity Regulatory Authority** – Established in 2000 under the Electricity Act of 1999, is mandated to issue licenses, along with their terms and conditions, for the generation, transmission, distribution, sale, import, and export of electricity.



Developments

2001: UEGCL – Incorporated in 2001, the company was established to take over the generation activities, assets, and liabilities of the defunct UEB under the Public Enterprise Reform and Divestiture Act.

It acquired UEB’s 180 MW Nalubaale and 200 MW Kira Hydro Power Stations, and its portfolio now includes the 183 MW Isimba Hydro Power Plant, 50 MW Namanve Thermal Power Plant, and 600MW Karuma Hydro Power Plant.

Transmission

The transmission segment is wholly owned by the government of Uganda. **UETCL** – licensed to coordinate the power supply system to obtain a balance between the generation and consumption of electricity, coordinate transmission outages, monitor the import and export of electricity and prepare forecasts of capacity requirements.



Developments

2001: Incorporated on 26 March 2001, UETCL is the System Operator and owns transmission lines above 33kV and holds licenses for high-voltage transmission, system operation, electricity import/export, and bulk supply.

As Uganda’s sole power buyer, it purchases all electricity fed into the national grid. Generators of electricity are required to sign a Standardized Power Purchase Agreement (PPA) with UETCL

Distribution

The distribution segment, is also liberalised and has private players, as well as a government of Uganda-owned distribution Company

Uganda Electricity Distribution Company Ltd. (UEDCL), fully owned by the Ugandan government through the Privatization Unit of the Ministry of Finance, Planning, and Economic Development (MoFPED), was incorporated on April 1, 2001. On March 1, 2005, UEDCL was granted an asset ownership license, enabling it to own facilities for the distribution network up to 33kV.



Developments

Independent Power Producers: ERA has licensed nine electricity distribution companies, including, West Nile Rural Electrification Company (WENRECo), Bundibugyo Electricity Cooperative Society (BECS), Kyegegwa Rural Energy Cooperative Society (KRECS), Pader-Abim Community Multi-Purpose Electricity Cooperative Society (PACMECS), Kilembe Investments Limited (KIL), Hydromax, and Kalangala Infrastructure Services Limited (KIS).

Regulations & Policies

Regulatory Procedures and Approval Process

1. Sign MoU with Landowner + Conduct Pre-Feasibility Study.

Minigrid developers begin by identifying a promising rural site for electrification. To secure legal access, they sign a MoU with the landowner. They also conduct a pre-feasibility study a short report that shows basic project viability (e.g., number of households, estimated demand, and willingness to pay).

2. Submit Expression of Interest (Eoi) to MEMD

Next, the developer sends an Expression of Interest to the Ministry of Energy and Mineral Development (MEMD). This letter includes the MoU and pre-feasibility study and shows the developer's intent to explore the site for a minigrid project.

3. Obtain Letter of Support from MEMD

MEMD reviews the proposed site to make sure it is suitable and not already assigned to another investor. If approved, MEMD issues a Letter of Support, confirming the site is eligible for development and may qualify for government support (like connection grants).

4. Conduct a Full Feasibility Study

With MEMD support secured, developers must now carry out a detailed feasibility study. This includes, Energy demand assessment, Customer types (households, businesses), Technical system design, Tariff structure, Business and financial model. This study strengthens the case for investment and forms a key part of the application to the electricity regulator.

5. Apply for Environmental Permit (Project Brief)

Developers must prepare and submit a Project Brief to NEMA, Uganda's environment agency. While solar systems under 2 MW are exempt from full Environmental Impact Assessments, the distribution network (if under 11kV) still requires approval through this brief.

6. Apply for Building Permit

Developers must also apply for a Building Permit from the district's Building Control Officer. This includes: Land lease documents; Development permission from the Physical Planning Committee; Sketches and technical drawings
This step can take time and may involve follow-up visits to local authorities.

7. Apply for Construction Permit (If Needed)

If the minigrid project includes water use (e.g., borehole drilling), then a Construction Permit must be obtained from the Department of Water Resource Management. This is only required if your project will use or access groundwater or surface water.

8. Compile Full Application for License Exemption

Once all the above permits and studies are complete, the developer puts together the full application package for the ERA. This includes: Feasibility study, Business plan, Power station and grid layout, Environmental and building permits, Land lease documents, MEMD support letter, Tariff forms and consumer agreements

9. Submit to ERA + Pay USD 3,000 Fee

The complete application is submitted to ERA along with a USD 3,000 application fee. This covers the review of your exemption request. If you have multiple sites under 2 MW total, you can include them all in one application.

10. ERA Reviews and Issues License Exemption

ERA will evaluate the application and issue a License Exemption Certificate within 90 days (if all requirements are met). Only after this certificate is granted can construction legally begin.

Regulations & Policies

Regulatory Approach to 5 Key Questions

Key Regulatory Question	Government Entities Responsible for Decision	Current Regulation
Market Entry: License, Registration, Permit, etc.	Electricity Regulatory Authority, Ministry of Energy and Mineral Development,	<ul style="list-style-type: none">- The Electricity Act, 1999, mandates that any entity involved in the generation, transmission, distribution, sale, export, or import of electricity must obtain the appropriate licenses from ERA.- Applicants must submit detailed proposals, including technical and financial plans, to ERA for evaluation.- Compliance with environmental and social impact assessments, as stipulated by the National Environment Management Authority (NEMA), is mandatory.
Tariffs: what is the tariff review and approval process; are there automatic adjustment clauses for fuel price increases, inflation, etc.?	Electricity Regulatory Authority (ERA)	<ul style="list-style-type: none">- ERA is responsible for setting and reviewing electricity tariffs to ensure they reflect the cost of service and promote investment in the minigrid sector.- The tariff review process also considers factors such as fuel prices, inflation, and foreign exchange rates.- Automatic adjustment mechanisms are in place to account for significant changes in these factors, ensuring that tariffs remain fair and reflective of current economic conditions.
What are the minimum quality of service standards?	Electricity Regulatory Authority (ERA)	<ul style="list-style-type: none">- The Electricity (Primary Grid Code) Regulations, 2003, outline the technical standards for the design, operation, and maintenance of electrical systems in Uganda. - These regulations ensure the safety, reliability, and efficiency of the electricity supply.- Compliance with these standards is mandatory for all licensees, and ERA conducts regular audits to ensure adherence.
What are the main technical standards/requirements?	Electricity Regulatory Authority (ERA)	<ul style="list-style-type: none">- The Electricity (Primary Grid Code) Regulations, 2003, outline the technical standards for the design, operation, and maintenance of electrical systems in Uganda. These regulations ensure the safety, reliability, and efficiency of the electricity supply
What happens when the main grid arrives in the service area of the minigrid?	Electricity Regulatory Authority (ERA)Rural Electrification Agency	<ul style="list-style-type: none">- The Electricity (Isolated Grid Systems) Regulations, 2020, provide guidelines for the integration of isolated minigrids into the main grid.-Upon the arrival of the main grid, minigrid operators have the option to: 1) Connect their systems to the main grid and operate as Small Power Producers (SPPs), selling electricity to the national distributor. 2) Sell their distribution infrastructure to the national distributor at a fair market value.- The specific course of action is determined through negotiations between the minigrid operator, ERA, and the national distributor, ensuring that the interests of all parties, including consumers, are considered.

1. Electricity Regulations Authority

Regulations & Policies

Gaps and Challenges

Licensing

- Licensing poses a major challenge for minigrid development in Uganda. While the Electricity Order (ERA, 2007) exempts off-grid minigrids smaller than 2MW from formal licensing requirements, developers are still required to obtain a certificate of exemption for each project from ERA.
- Unfortunately, securing this exemption often involves a lengthy and cumbersome process beyond 3 months, creating delays and uncertainty that hinder project implementation and scale-up. The process is unpredictable, opaque, and time-consuming as there is a lack of clarity in the process and how the license approval actually works.

Tariffs

- When minigrid developers propose tariffs higher than on-grid rates to the ERA for review. ERA often adjusts these proposed tariffs to align more closely with the on-grid rate.
- This creates a challenge for developers, as the revised tariffs can make their projects financially unsustainable without subsidies, highlighting a significant gap in balancing affordability for consumers with the financial sustainability of minigrid projects.
- Developers also face short concession periods of about 10 years.

Approval Time

- Uganda's minigrid developers face significant challenges in obtaining the necessary approvals and licenses due to prolonged bureaucratic processes and delays. While the regulatory framework is in place, the time required to secure approvals from ERA remains a major hurdle for investors.
- One of the key bottlenecks is the acquisition of environmental approvals, such as the NEMA certificate, which takes an extended period to process. Additionally, while projects below 2MW are exempt from the Distribution and Generation License, obtaining the exemption itself is a lengthy process, often taking up to one and a half years.

Subsidies

- Minigrid projects often need subsidies because building electricity infrastructure in remote areas is expensive, and lower energy demand in these regions makes it hard to cover costs from sales alone.
- Developers receive limited support from the government in terms of subsidies compared to on-grid.
- Subsidies for privately operated minigrids in Uganda are inconsistent. Some developers face delays of over two years in receiving promised subsidies, forcing them to take out loans to continue operations, which can turn projects into financial losses.

Institutional Framework

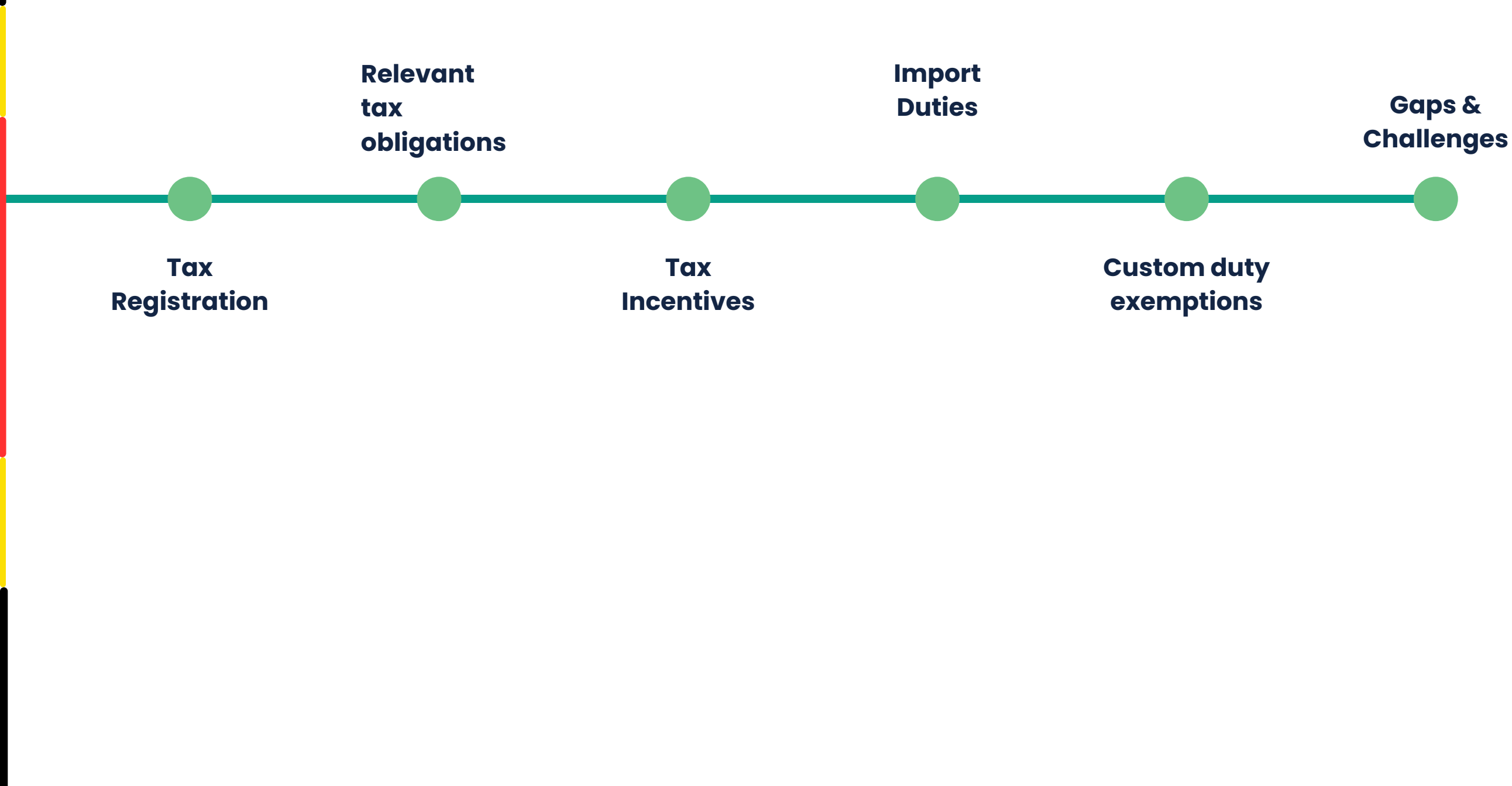
- There is no single streamlined process for minigrid approvals. While the Electricity Act provides a general framework, implementation varies across agencies.
- For example, Uganda Electricity Distribution Company Limited has a say in grid extension plans, but their roles regarding minigrid integration are unclear.
- This regulatory ambiguity discourages developers who face unpredictable compliance demands.

1. *Uganda Minigrid Report*

2. *Financial Aggregation for Distributed Renewable Energy in Uganda*

3. AMDA Research

Tax & Import Duties



Tax & Import Duties

Tax Registration

The taxation of companies or partnerships in the renewable energy sectors follows most other 'for profit' companies

Registration

- All taxation starts with the acquisition of a Tax Identification Number (TIN). A TIN is an identifying number used for tax purposes in Uganda; it is one's personal account with URA and it can be obtained through URA web portal or visiting URA designated office.
- A request for registration is lodged thereon with the following credentials being requested at the time of registration;
- Documents of identity including IDs & passports for individuals and company registration and business names for corporate persons
- An active email address and mobile telephone
- Certificate of Incorporation/certificate of registration
- Company Form 20 showing the Directors of the company,
- TINs of the directors or any other persons with legal capacity to bind the entity
- Any other legal documents that confirms existence.

Tax & Import Duties

Relevant Tax Obligations

Income Tax

- Income tax is tax imposed on three broad categories of income, Business income, Employment income and Property income.
- Resident person are taxed on worldwide income, while non-resident persons are taxed only on income derived from success within Uganda.
- Most of the taxes imposed are self-assessed, where the taxpayer is responsible for calculating taxable income and tax due on the income.
- The income tax rate for a company recognised under any law in Uganda, is 30% of the entity's CHARGEABLE INCOME i.e. gross income less tax allowable deductions. For non-resident companies, an additional 15% tax may become chargeable on repatriated branch profits.

Value Added Tax (VAT)

- VAT is a consumption tax charged at a rate of 18% on all supplies made by taxable persons. Under the VAT Act, a supply of goods or services takes place when –
 - 1) A tax invoice is issued for the supply;
 - 2) The goods are delivered;
 - 3) The services are rendered;
 - 4) The goods are made available; or
 - 5) The goods or services are paid for in whole or in part.
- When any of the above takes place, the difference between VAT incurred by the person and the VAT charged by the person is paid to, or claimed as an offset or cash refund from the tax authority.

Withholding Tax (WHT)

- Withholding tax is a system of tax collection in which a payer (withholding agent) in respect of specified payments is required to deduct a specified portion of the payment entitled to the payee and remit that portion to the Revenue Authority
- Any payments of professional fees, consultancy fees or management fees will attract withholding tax at the rate of 6% (residents) and 15% (non-residents).

Corporation Tax

- Corporation tax is governed by the Income Tax Act Cap 340 (ITA).
- A company is resident in Uganda for a year of income if it is incorporated under Ugandan law, the management and control of its affairs are exercised in Uganda or the majority of its operations are carried out in Uganda.
- A resident corporate entity is subject to tax on its worldwide income. The corporate tax rate is 30%.
- A non-resident person is subject to tax only on Uganda-sourced income.

Tax & Import Duties

Tax Incentives Available to Firms in the Renewable Energy Sector

Income Tax

- Investors in the Energy sector benefits from a 10-year income tax exemption. This applies to Free Zone Developers investing at least USD 50 million and Free Zone Operators investing at least USD 10 million (foreigners) or USD 2 million (Ugandan citizens) from the date of business commencement. Special income tax deductions apply for investments in solar power, wind energy, bio-gas, and geothermal energy.
- Private employers of persons with disabilities (PWDs) who have at least 5% of their full-time workforce comprised of persons with disabilities (PWDs) are eligible for a 2% deduction on their income tax payable. This incentive aims to encourage the inclusion of PWDs in the workforce. .

Withholding Tax

- Contractors and subcontractors working on hydroelectric power, solar power, geothermal power, bio-gas, and wind energy projects benefit from a lower withholding tax rate of 10% instead of 15%, making renewable energy projects more financially viable.

VAT

The following renewable energy products enjoys 100% VAT exemption:

- Import of solar and wind energy equipment, including deep cycle batteries, solar panels, DC inverters, DC charge controllers.
- Import of penstock pipes for use in hydropower projects, biogas digesters, and water treatment effluent plants
- These products must be imported for use in renewable energy generation under the 5th Schedule of the EAC Customs Management Act, 2004

Tax & Import Duties

Import Duties 1/2

Import duty on components/materials relating to renewable energy and setting up of minigrids: The importation of materials for the construction, setup and operation of minigrids attracts several taxes, as outlined; Import duty on components/materials relating to renewable energy and setting up of minigrids:

Import duties – on energy-related equipment in Uganda vary based on the source country and product. Renewable energy equipment, biogas digesters, and raw materials for solar panels or energy-saving stoves are exempt from import duties, provided they are imported by registered manufacturers and used exclusively for production, under the EAC Customs Management Act, 2004.

Value Added Tax (VAT) – The supply of liquefied petroleum gas (LPG) is exempt from (VAT. Additionally, the supply of locally manufactured electric vehicles or the frame and body of locally fabricated electric vehicles is also exempt from VAT. Cooking stoves that use fuel ethanol and are assembled in Uganda are exempt from VAT until 30 June 2028. Furthermore, the importation of penstock pipes for use in hydropower projects is subject to a 0% VAT rate under the EAC Common External Tariff.

Import Declaration Fees 2% – In Uganda the Import Declaration Fee (IDF) is a mandatory charge applied to all imported goods to facilitate customs processing. The IDF is set at 2% of the Cost, Insurance, and Freight (CIF) value of the imported goods. This fee is applicable regardless of the nature of the goods, including renewable energy equipment.

Railway/Infrastructure Development Levy of 1.5 % – This is a levy that is imposed on goods imported from outside the East African Community (EAC) in order to collect funds needed for regional infrastructure projects. All imported goods (from outside EAC), except those exempted under the law, are subject to a levy of 1.5% on the customs value of imported goods. The levy is intended to mobilize funds for regional infrastructure projects that will assist in improving the infrastructure and reduce the cost of transport and the cost of doing business in the region.

Tax & Import Duties

Import Duties 2/2

Custom Duty – Various classes of plant and machinery imported into Uganda enjoy customs duty exemptions, particularly those used in energy-related infrastructure. Certain products from the East African Community (EAC) and the Common Market for Eastern and Southern Africa (COMESA) benefit from special customs duty rates, which can apply to energy-related imports.

Excise Duty – This apply to construction materials used in industrial parks, free zones, and renewable energy factories. Developers investing at least USD 50 million (foreign) or USD 10 million (EAC citizens) are eligible for nil excise duty on these materials from the start of construction. Manufacturers of renewable energy equipment outside industrial parks also qualify with similar investments. Inputs for energy-saving stoves are exempt if used solely for production. Additionally, fuel and oils for thermal power generation to the national grid, as well as aviation fuel imported by registered airlines or companies, are exempt from excise duty.

Stamp Duty Exemptions – A manufacturer of electric vehicles, electric batteries, or electric vehicle charging equipment, or a fabricator of the frame and body of an electric vehicle, is exempt from stamp duty, provided the investment capital meets the minimum requirements: USD 10 million for foreign investors, USD 300,000 for Ugandan citizens, or USD 150,000 for Ugandan citizens investing up-country.

1. [*Tax Summaries by pwc-Uganda*](#)

2. [*Uganda Revenue Authority – Tax Incentives*](#)

Tax & Import Duties

Custom Duty Exemptions

Duty remission for official aid-funded and other government-driven projects

The remission of duty and VAT may be granted on a broader scale for major infrastructure projects carried out for or on behalf of the government. In such instances, the exemption process is initiated by the MEMD and assessed on a case-by-case basis.

The duty remission scheme

In accordance to East African Community Customs Management Act, 2004 section 251, the Council of Ministers may grant remission of duty for the manufacture of goods in a Partner State either:

- Goods imported for use in the manufacture of goods for export under Export Promotion Program Office (E.P.P.O)
- Such goods imported for use in the manufacture of approved goods for home consumption as the Council may, from time to time, by notice in the Gazette, determine under Essential Goods Production Support Program (E.G.P.S.P)

A manufacturer seeking to join the scheme shall make an application to the committee. A valid Tax Compliance Certificate shall accompany a new application where applicable, a Certificate of Incorporation, VAT Registration Certificate and identification Certificate for Tax Purposes, (TIN) and a detailed production plan processes for your company indicating standard formula for manufacturing, throughput period and estimated wastes or losses incurred.

Tax & Import Duties

Gaps and Challenges

High Tax Burden on Minigrid Components

- While Uganda provides VAT exemptions on solar panels, deep-cycle batteries, and charge controllers, other critical components still attract import duties and VAT.
- For instance,, transformers, energy meters, and distribution poles used in minigrid projects are subject to a 25% import duty and 18% VAT under the EAC Common External Tariff.
- This increases project costs and discourages investment.

Slow and Complex Tax Exemption Process

- Under the EAC Customs Management Act (2004), renewable energy equipment can qualify for import duty exemptions, but approvals are case-specific and require direct engagement with the Uganda Revenue Authority.
- Developers often wait over six months for exemption approvals, delaying project implementation. Additionally, the exemption process lacks transparency, with no clear tracking system for applicants.

Limited Incentives for Small-Scale Developers

- Tax incentives in Uganda are structured to favor large-scale investors.
- Free Zone Developers investing at least USD 50 million receive a 10-year income tax exemption, but small-scale minigrid developers investing under USD 2 million do not qualify for such benefits.
- This creates a financing gap that disproportionately affects local and emerging developers.

Uncertain Subsidy and Duty Remission Policies

- Uganda's subsidy programs, such as the Rural Electrification Fund, have been inconsistently applied.
- While UEDCL receives subsidies to extend the national grid, private minigrid operators struggle with delayed subsidy disbursements.
- Some developers report waiting over two years for promised capital cost subsidies, leading to project stagnation or reliance on expensive private loans.

Import Duty and VAT Inconsistencies

- While some solar-related products like photovoltaic panels and batteries are tax-exempt, other equally essential items for minigrids—such as smart meters, cabling, switchgear, and energy storage systems—are not.
- This inconsistency forces developers to source alternative equipment at higher costs, limiting the financial viability of projects.

1. [Uganda Minigrid Report](#)

2. [Financial Aggregation for Distributed Renewable Energy in Uganda](#)

3. AMDA Research

Business Environment

**Business
registration**

**Importation of
equipment**

**Gaps &
Challenges**

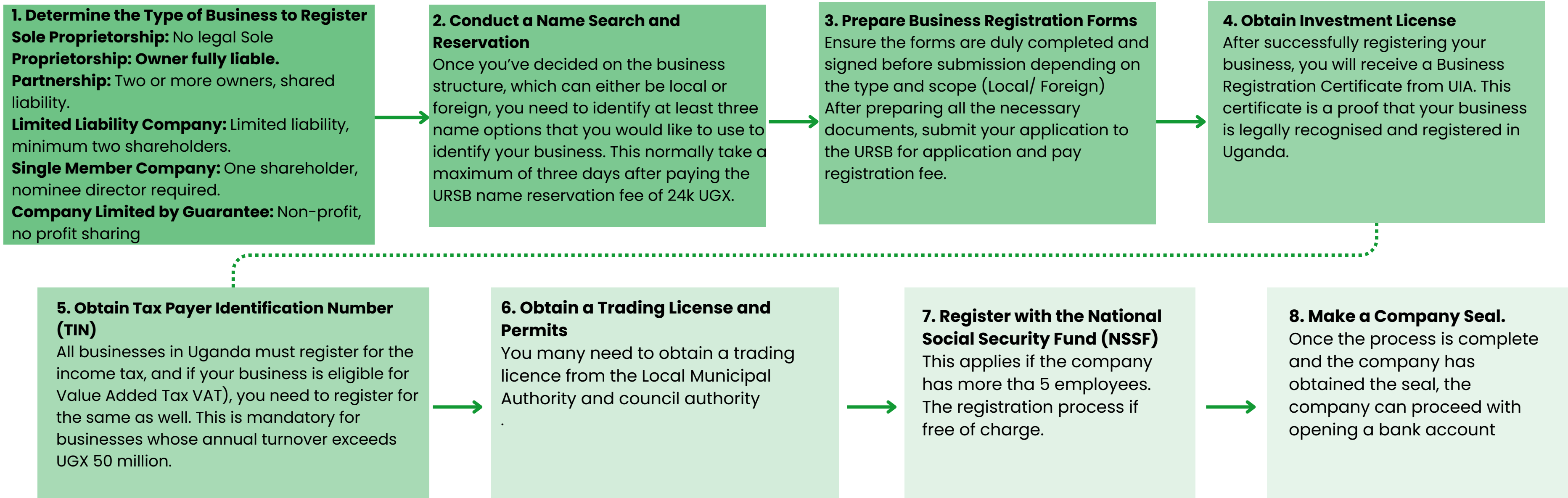


Photo Credit: NOA Uganda

Business Environment

Business Registration

- After reviewing policies, regulations, minigrid development licenses, permits application procedures, taxation, and duty requirements, it is crucial to integrate these elements to understand Uganda's overall business environment.
- This guide provides a step-by-step approach for new developers entering the market to set up minigrid businesses focused on selling power to communities.
- This guide ensures all requirements, regulatory, legal, operational, and taxation frameworks are clearly outlined to ensure compliance.
- The Uganda Registration Services Bureau (URSB) handles business registration, a key first step for any investor



Business Environment

Importation of Equipment

1.Verification of goods to be imported

The importer need to ensure that all goods to be imported meet Ugandan standards as prescribed by Uganda National Bureau of Standards by obtaining an import permit For products in a 'negative list', an import license from t he Minister of Tourism, Trade and Industry are required

2.Import declaration

The importer sends information to the supplier clearly describing the following; Good description Technical specifications, quantity, Price, delivery period , and regulatory requirements.

3. Content particulars

Confirm that the goods are not on the prohibited list Check to make sure that the goods do not attract anti-dumping duties .

4. Supplier's Invoice

Discuss with the supplier, sign a contract, obtain an invoice, and make payment as agreed. Obtain documented carriage of your goods.

8. Consignment inspection

The consignment owner or a representative will be required to appear physically at the verification bay with a copy of packing list for verification by URA custom officer.

7. Appointment of a Clearing Agent –

Upon appointment, the agent computes the customs duty, transport chargers and advices on the quality certificates required.

6. Compliance information Before the goods get in the country you should: Obtain the commercial invoice, packing list, bill of lading, certificate of conformity.

5. Customs value declaration:

Here, present proof of payments, certificate of origin, commercial invoice, Bill of lading and certificate of conformity and tax where applicable.

9. Obtain release order

The entity in charge is the URA, the clearing agent can print the release order. The Authorised economic operators (AEO)s can exit their goods from the system on their own.

10. Obtain the exit note

Upon clearance by the reconciliation unit front-desk, the Authorised economic operators (AEO)s generate exit notes from the system on their own.

Business Environment

Gaps and Challenges

Currency mismatch

- The high volatility of the UGX against the USD makes borrowing in foreign currency difficult. This impacts both existing loans and future funding plans.
- Most investments in the sector are dollar and Euro-denominated, while revenues are in local currency. With the currency devaluation, minigrids developers' are exposed to currency devaluation risks.
- It also raises the cost of foreign exchange hedging, which in turn increases the overall cost of setting up an aggregation facility, creating a significant financial challenge.

Delays in Subsidy Disbursement

- The Government of Uganda, through the Rural Electrification Fund, provides subsidies to promote minigrid expansion.
- However, funds are disbursed inconsistently, with developers reporting delays of up to two years
- This forces some companies to take on expensive bridge financing, increasing overall project costs.

Cumbersome Business Registration Process

- Setting up a minigrid company in Uganda requires registration with the Uganda Registration Services Bureau, tax registration with, environmental approvals from, and sector-specific licenses from ERA.
- Developers struggle to secure approvals due to bureaucracy and unclear timelines.
- Permits get stuck, forcing endless follow-ups with developers relying on endless phone calls, visits to government offices that waste time, delaying projects and increasing costs.

Land Acquisition Challenges

- Minigrid developers often face difficulties in acquiring land due to unclear land ownership structures and disputes in rural communities.
- For example, the lack of formal land titles in areas like Karamoja and West Nile forces developers to engage in lengthy negotiations with local communities and customary landowners, delaying project implementation.

High Cost of Local Financing

- Uganda's commercial banks offer loans at interest rates ranging from 18-22%, which is significantly higher than regional peers like Kenya (12-14%).
- Moreover, the lack of renewable energy-specific financing products limits the ability of local developers to scale their operations.

1. [Uganda Minigrid Report](#)

2. [Financial Aggregation for Distributed Renewable Energy in Uganda](#)

3. [AMD Research](#)

Conclusion & Recommendations



Photo Credit: ENSOL

Gaps and Challenges

Policy and Regulations

- Complex and lengthy licensing process from ERA and MEMD
- Lack of clear framework for minigrid-grid integration when the national grid arrives
- Limited enforcement of Renewable Energy Feed-in Tariff (REFiT)
- High cost of acquiring Environmental Impact Assessment (EIA) from NEMA
- Lack of a standardized grid code for minigrid operations

Tax and Import Duty

- High import duty (25%) and VAT (18%) on key components like inverters, transformers, and energy storage systems.
- Slow and complex VAT and duty exemption process through Uganda Revenue Authority (URA)
- Limited access to tax incentives for small-scale minigrid developers
- Inconsistent application of the EAC Duty Remission Scheme for renewable energy equipment
- No VAT exemption on spare parts and maintenance tools for minigrid operations

Business Environment

- Currency mismatch due to revenue collection in UGX while loans are in USD
- Limited access to affordable finance from local banks
- Delays in subsidy disbursement from the Rural Electrification Fund
- High cost of logistics and transport of equipment to remote areas
- Limited local skilled labour for minigrid installation and maintenance.

Conclusion

Policy and Regulations

- Uganda’s regulatory framework for minigrids is governed by the Electricity Act, 1999(Cap 145) and overseen by the Electricity Regulatory Authority (ERA), promoting sustainable energy access and the integration of renewable energy sources.
- Under Uganda’s Small Power Producers (SPP) Framework, projects with a capacity of up to 20 MW qualify as small power producers.
- This framework permits minigrid operators to supply electricity directly to consumers or sell it to the national grid if it extends to areas where the minigrid is located.
- Developers can obtain relevant information on sector policies, regulations, and guidelines through the Ministry of Energy and Mineral Development and Electricity Regulatory Authority (ERA).

Tax and Import Duties

- In Uganda, obtaining a Taxpayer Identification Number (TIN) is the initial step for all tax-related matters. A TIN is a unique 10-digit number assigned to each taxpayer and is required for all tax purposes. You can acquire a TIN through the Uganda Revenue Authority (URA) website
- For companies operating in Uganda, the following documentation is necessary, TINs of Directors, Company Form 7 or 20, Certificate of Incorporation and Company Email Address.
- Items such as photosensitive semiconductor devices, including photovoltaic devices, solar water heaters, solar refrigerators, and solar cookers, are exempted from Value Added Tax (VAT).

Business Environment

- Investors planning to invest in Uganda need to follow the highlighted process: Name Search and Reservation, Company Registration, Self-Assessment, Certification, Company Returns, Tax Registration, Local Council Authority, Annual Filing, and Compliance.
- Minigrid businesses need to comply with the set policies and regulations shared by ERA.
- Developers need to maintain accurate books of accounts, provide import documentation, and comply with tax filings as guided by URA.
- Developers can apply for exemptions when operating a minigrid below 2MW.
- The process includes submitting application documents, obtaining a site inspection letter, participating in a project inspection, and finally receiving an approved list of items.

Recommendations

Key Section	Recommendations
Policy and Regulations	<ul style="list-style-type: none">• Streamline and standardize the licensing exemption process with online submissions and tracking mechanisms for minigrids under 2 MW to reduce delays.• Provide a comprehensive licensing guideline with timelines and clear requirements.• Introduce a Minigrid Asset Compensation Policy under the Electricity Act to guide asset transfer and protect private investments.• ERA should set a fixed tariff for minigrid operators selling excess power to the grid and fast-track PPA approvals within 3 months.• Allow cost-reflective tariffs for minigrids without heavy regulatory intervention.• Waive EIA fees for projects under 2MW and fast-track environmental approval for rural electrification projects.• Develop a Minigrid-Specific Grid Code to guide technical and operational standards.
Tax and Import Duties	<ul style="list-style-type: none">• Expand VAT and import duty exemptions to cover all critical minigrid components under the EAC Customs Management Act.• Establish a dedicated Renewable Energy Tax Exemption Desk within URA to handle all minigrid-related tax issues, fast-track applications for renewable energy for developers, and ensure proper application of duty exemption.• Lower the capital investment threshold for tax holidays from USD 50 million to USD 2 million for local developers.• Introduce a centralized tax exemption tracking system under MEMD to monitor all minigrid tax-related exemptions.• Amend the VAT Act to include spare parts like battery replacement systems, smart meters, and transformers.
Business Environment	<ul style="list-style-type: none">• Introduce local currency-based financing options to reduce foreign exchange exposure.• Offer government-backed currency hedging facilities for minigrid developers.• Provide concessional loans in Ugandan Shillings through development banks, Commercial banks, Dhamana Guarantee Company Limited which offers local currency financing solutions.• Establish a Renewable Energy Credit Facility with lower interest rates (below 10%) for minigrid developers.• Set up a transparent and time-bound subsidy disbursement framework managed by REA.• Prioritize subsidy payments for operational minigrid projects.• Implement clear subsidy mechanisms to bridge the gap between consumer affordability and developer sustainability.• Provide tax rebates on transport and logistics costs for minigrid developers targeting off-grid communities.• Partner with vocational institutions to introduce renewable energy training programs and certification for local technicians.

1. Electricity Regulations Authority



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