

Uganda

Introduction

This note was developed by Global Off-Grid Lighting Association (GOGLA) with the support of the World Bank Group Lighting Global Program, the Energy Sector Management Assistance Program (ESMAP), the Shell Foundation, USAID, Power Africa, the UK Department for International Development (DFID), Africa Clean Energy (ACE) and Sustainable Energy for All (SEforAll). It is part of a series of briefing notes that provide a high-level overview of the status of different countries' off-grid solar markets, as well as relevant policies and programs¹.

Key statistics^{2&3}

Demographics

Total Population	42,723,139
Population Density per km ²	213
GDP per Capita	USD 643.1
GDP Growth	6.1%

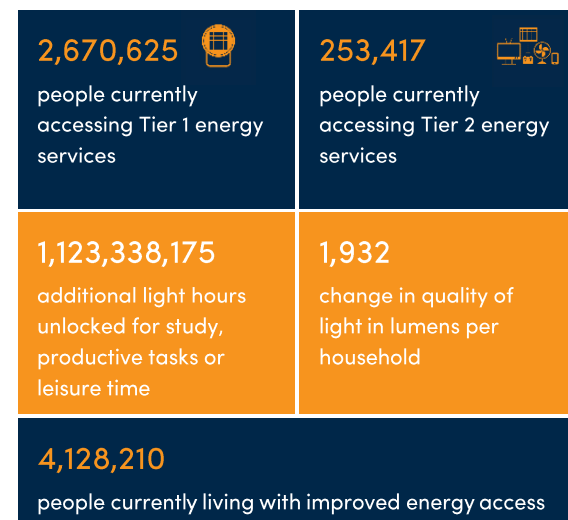
Energy Access Deficit

National Electrification Rate	22%
Urban Electrification Rate	57%
Rural Electrification Rate	11%
Number of households without power	6,9 million
% of quality-verified ⁴ (QV) vs non-QV products in the market ^{5&6} (H1, 2019)	QV: 57% Non-QV: 43%

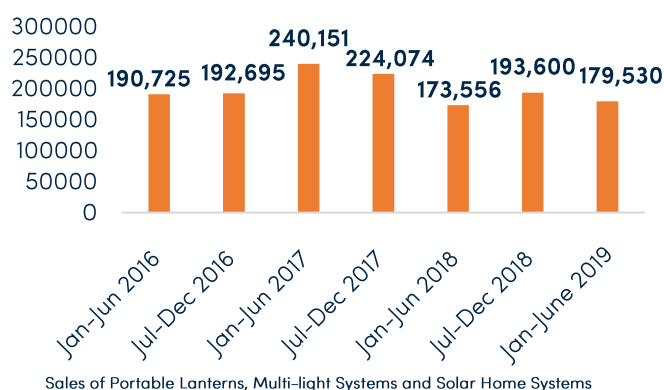
Electrification Planning

Electrification Targets ⁷	Universal access by 2040
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Impact⁸



Sales⁹



¹ The information and views expressed in this brief are GOGLA's alone and are based on our current understanding of the policy situation in this country. We welcome any updates, revisions or clarifications at info@gogla.org.

² <https://data.worldbank.org/>

³ <https://www.usaid.gov/powerafrica>

⁴ Quality-verified products are tested according to the Lighting Global Quality Standards. For more information please see the [Lighting Global Quality Assurance Program](#).

⁵ Share of quality-verified (QV) and non-QV sold by GOGLA and Lighting Global affiliates.

⁶ Data on a specific region, country or product category is only included when it has satisfied the three-data point rule, meaning that at least three separate product manufacturers have reported data for any single data point. When we have fewer than three responses for a region, country or product category, no results are shown to protect the proprietary interests of the companies who have supplied data in support of this industry report.

⁷ [Rural Electrification Strategy and Plan \(2013-2022\)](#), The Government of the Republic of Uganda, 2013

⁸ Impact numbers have been estimated by plugging the most recent sales data into the [Standardized Impact Metrics for the Off-Grid Solar Energy Sector](#). The reported estimates differ from the previous edition of the country briefings due to the use of a smaller, yet more consistent and recent dataset, considering only products sold by GOGLA members and Lighting Global affiliates since 2016. Note that while the numbers shown represent the aggregate impact of key players in the off-grid solar sector, these estimates do not present the full global impact of off-grid solar lighting products sold.

⁹ All sales data included in this briefing is derived from the "Global Off-Grid Solar Market Report Database", result of a joint primary data collection effort carried out by GOGLA in partnership with IFC Lighting Global and the Efficiency for Access Coalition. The public version of the resulting report of the effort is available [here](#).

Key Facts

Uganda has an emerging off-grid solar industry, with over 102,718 quality-verified solar lights and home systems sold in 2018. According to the most recent Uganda Bureau of Statistics household survey (2016-17), 18% of households (1.4 million) are using off-grid solar lights or home systems (9% of urban households and 21% of those in rural areas). Most of these products are believed to be basic pico-PV products¹⁰.

The Government of Uganda has set an ambitious target to increase access to electricity in rural areas to 26% by 2022, with a view to achieving universal access by 2030. This includes increasing the number of off-grid connections by 138,500 by 2022, with 95% of them expected to come from solar home systems¹¹. To realize this, the government is developing an off-grid strategy with the support of Power Africa and NRECA. The development of an off-grid strategy represents an opportunity to fully integrate off-grid solutions into the national electrification plan. In doing so, the Government can clearly identify the key market barriers and the steps it will take – in partnership with sector support programs active in the country – to address those barriers.

Promoting Quality & E-Waste Management

Uganda is in the process of developing a national quality assurance framework by adopting standards – in line with IEC standards – for both pico-PV and plug-and-play systems, with support from the World Bank and UNCDF. Uganda is also developing a quality assurance framework for component-based solar home systems. While a full framework is being developed, an interim framework is in place to enable companies to access a credit facility being implemented by the Uganda Electricity Credit Capitalisation Company (UECCC).

There is no specific e-waste legislation in Uganda although the National Environment Management Authority (NEMA) is in the process of revising the National Environment Management Policy (2015) that is expected to include E-Waste as a separate category¹².

Taxation

The off-grid solar industry benefited greatly from sales tax and import duty exemptions until 2016. Import duties on some solar lights, some components of solar home systems and related appliances – equivalent to around 30% of the cost of goods – were introduced in 2016, as part of a change implemented across the East Africa Community. While there has always been an import duty exemption in place for deep-cycle batteries, it has been emphasized by the local tax body, Ugandan Revenue Authority (URA), that the exemption only applies if the battery is intended for use on a solar system. As such, importers are expected to receive endorsement from the Uganda Solar Energy Association (USEA) and Ministry of Energy to receive these exemptions. The Uganda Off-Grid Market Accelerator, being implemented by Open Capital Advisors with support from USAID, Power Africa and the Shell Foundation, is undertaking a fiscal study of different taxation and subsidy options to inform future policy.

Investments

Uganda has successfully attracted several major international off-grid solar companies, many of whom have invested significantly in building out distribution networks. Several concessional financing facilities are in development which are likely to make it easier for companies to access finance.

Sector Support Programs

Uganda benefits from a wide range of sector support programmes addressing a broad range

¹⁰ Draft Uganda Off-Grid Strategy for Stand Alone Solar Systems and Mini-Grids prepared by NRECA International for USAID – Uganda Electrification Expansion and Improvement Program Cooperative Agreement No. AID-OAA-A10-00028, April 2018

¹¹ Draft Uganda Off-Grid Strategy for Stand Alone Solar Systems and Mini-Grids prepared by NRECA International for USAID – Uganda Electrification Expansion and Improvement Program Cooperative Agreement No. AID-OAA-A10-00028, April 2018

¹² Guidelines for E-Waste Management in Uganda, Ministry of Information and Communications Technology of Uganda, March 2016

of market barriers and policy challenges. The Government has partnered with DFID to develop an Energy Compact, which clearly outlines steps to be taken to support the off-grid solar market¹³. The World Bank is providing line of credit and guarantee support to local banks through the UECCC in order for them to lend to off-grid solar companies in local currency, and the UN Capital Development Fund (UNCDF) is providing grants, loans and loan guarantees to off-grid solar companies. USEA continues to receive technical assistance from USAID, Power Africa, DFID the World Bank and UNCDF¹⁴. Lighting Africa also has a programme in Uganda, supporting companies with consumer awareness, business development and access to finance. Finally, the Scaling Off-Grid Energy platform, supported by both USAID and DFID, has made grants to a number of leading companies¹⁵.

Opportunities and Barriers

The Uganda Off-Grid Energy Market Accelerator is exploring opportunities for productive use of solar systems in key sectors like agriculture, health, education and ICT, also providing technical assistance to local financial institutions to mobilize local commercial financing towards off-grid companies¹⁶. However, as outlined by USEA, challenges remain regarding the lack of an off-grid component in the Rural Electrification Strategy and Plan, a challenging tax regime and limited access to finance. The absence of a mechanism for coordination amongst government agencies implementing off-grid strategy, or for dialogue between government and the private sector is also a challenge¹⁷. NRECA International further identifies a lack of consumer awareness, the need for incentives to enter underserved areas, and affordability as barriers that need to be addressed¹⁸.

Further Information

- Position Paper on Increasing Energy Access through Off-Grid Solar Solutions, Uganda Solar Energy Association, Forthcoming
- Report for Review by Advisory Group on Uganda Off-Grid Strategy Stand Alone Solar Systems and Mini-Grids, NRECA International, Forthcoming
- [Rural Electrification Strategy and Plan \(2013–2022\)](#), The Government of the Republic of Uganda, 2013
- [Uganda Fact Sheet](#), USAID Power Africa, 2018
- [Lighting Africa Country Page – Uganda](#), 2018
- [Mapping the Ugandan Off-grid Energy Market](#) – Prepared by the Uganda Off-grid Energy Market Accelerator, UOMA, 2018
- [Market Assessment of Modern Off Grid Lightning Systems in Uganda](#), Enclude, 2014
- Regulatory Indicators for Sustainable Energy (RISE) – [Uganda](#)
- [Uganda Solar Energy Association Handbook on Solar Taxation](#), USEA, 2019

¹³ [Uganda, Compact Development and Final Report](#), Energy Africa, September 2016

¹⁴ Visit [UNCDF CleanStart](#) for more information.

¹⁵ Visit [Scaling Off-Grid Energy](#) for more information.

¹⁶ [Ugandan off-grid energy market accelerator: mapping the market](#), Open Capital Advisors & Shell Foundation, 2018

¹⁷ Position Paper on Increasing Energy Access through Off-Grid Solar Solutions, Uganda Solar Energy Association, 2018

¹⁸ Draft Report for Review by Advisory Group on Uganda Off-Grid Strategy Stand Alone Solar Systems and Mini-Grids, NRECA International, 2018