

Malawi

Introduction

This note was developed by GOGLA with the support of the World Bank Group technical team and Lighting Global Program, the Energy Sector Management Assistance Program (ESMAP), the Shell Foundation, USAID, Power Africa, the UK Foreign Commonwealth & Development Office (FCDO) 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 countries' off-grid solar markets, as well as relevant policies and programs¹.

Key statistics^{2&3}

Demographics

Total Population	19,129,955
Population Density per km ²	203
GDP per Capita	USD 636.8
GDP Growth	0.8%

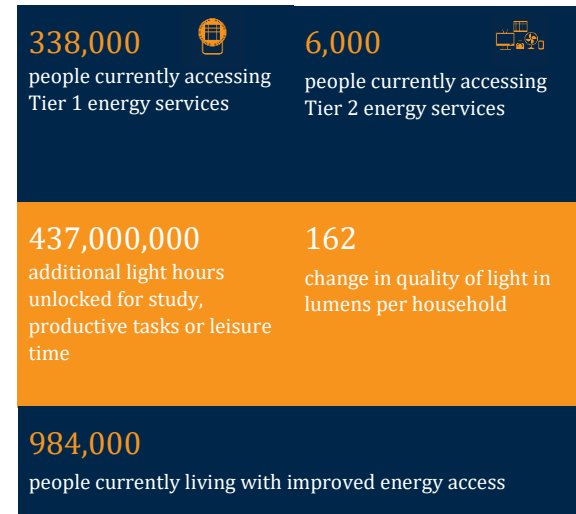
Energy Access Deficit

National Electrification Rate	11.2%
Urban Electrification Rate	45.5%
Rural Electrification Rate	4.1%
Number of people without access to electricity ⁴	16.5 million
% of quality-verified ⁵ (QV) vs non-QV products in the market ^{6&7} (H2, 2020)	QV: 84% Non-QV: 16%

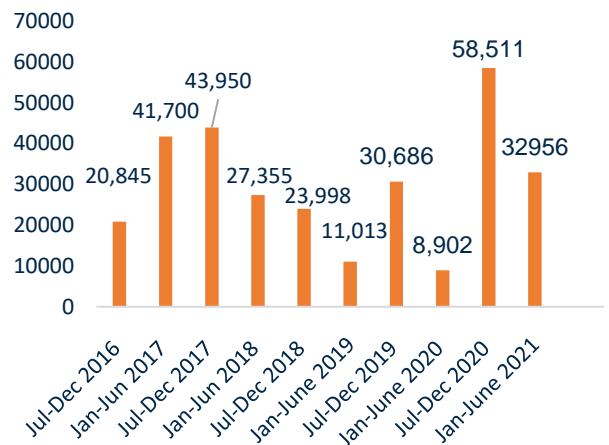
Electrification Planning

Electrification Targets ⁸	Universal access by 2035.
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Impact⁹



Sales¹⁰



Sales of Portable Lanterns, Multi-light Systems and Solar Home Systems

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 <https://trackingsdg7.esmap.org/country/malawi>

⁵ Quality-verified products are tested according to the IEC TS 62257-9-8. For more information, please see the [Verasol quality assurance programme](#).

⁶ Share of quality-verified (QV) and non-QV products sold by GOGLA and Lighting Global affiliates.

⁷ 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.

⁸ [Plan Actions National d'Efficacité Energétique \(PANEE\), Sénégal \(Période 2015-2020/30\), CEREEEC, 2015](#)

⁹ Impact numbers have been estimated on the basis of the Standardized Impact Metrics for the Off-Grid Solar Energy Sector. The reported estimates differ from the previous edition of the country briefings due a change in the calculation approach. 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 country impact of off-grid solar lighting products sold.

¹⁰ 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](#).

Current Status

Malawi has one of the most constrained power sectors in Sub-Saharan Africa with only 11% of its population having access to electricity. 80% of the population live in rural areas and of these, less than 5% have access to electricity.¹¹ There has been sustained demand for increased energy access in Malawi with an annual population growth rate of 2.7% which outpaces the current rate of electrification.¹² To meet the growing demand, the government of Malawi has developed several strategies in the energy sector, including power sector reform, rural electrification, and promotion of renewable energy. Research conducted by Community Energy Malawi (CEM) in 2020 highlights the practical and financial viability of solar home systems (SHS) in addressing low-income households' needs, and providing low capacity, small scale solutions.¹³

Policy, Regulation and Sector Planning

The government recognizes the demand and potential of Stand Alone Solar (SAS) solutions in addressing the current electrification challenge and has included SHS in its national electrification plans and strategies. The long-standing Malawi Rural Electrification Program (MAREP)¹⁴ aimed at increasing access to electricity to people in peri-urban and rural areas, has expanded to include and support the deployment of off-grid solar solutions. Malawi's Sustainable Energy for All (SEforAll Action Agenda) 2017¹⁵ intends to provide access to modern energy services for all by 2030 projecting that SAS will provide access to approximately 74% of all households. The National Energy Policy (NEP) 2018¹⁶ which currently governs the energy sector, and the Malawi Renewable Energy Strategy 2017¹⁷ provides high-level policy direction to build on the targets laid out in the SEforAll Action Agenda. This is complemented by technical analysis detailed in the 2017 Integrated Resource Plan which is reviewed every 5 years until 2035. Under the NEP, the government targets 80% electricity access by 2035,

with 45% of this from tier 1-2-3 access from mini-grids and pico-solar.¹⁸

Under the third Growth and Development Strategy,¹⁹ the government is working to establish the regulatory frameworks needed to attract private sector investment to the energy sector. The current Rural Electrification Fund has successfully extended the grid to the rural areas, but the fund has not yet been utilized for off-grid electrification.²⁰ Under the NEP, the government aims to commit 30% of funds from the Rural Electrification Fund to off-grid rural electrification between 2019 and 2023.²¹ This is to be overseen by the Ministry of Local Government and Rural Development (MoLGRD), the Ministry of Natural Resources, Energy and Mining (MNREM), and the Ministry of Finance.

Promoting Quality & E-Waste Management

Quality standards in Malawi are governed by the Malawi Energy Regulatory Authority (MERA), the Malawi Bureau of Standards (MBS), and to a lesser extent the Malawi Revenue Authority (MRA). For SAS, MERA issues licenses for the operation of energy businesses, as well as for the importation, selling, installation, and maintenance of solar products.²² The MBS issues import quality standards certificates for products which should adhere to a set of national standards.²³ The MRA is present at the border points of entry and assists in the enforcement of national standards. They also implement the zero-rating of quality verified solar products and components from import duty, excise duty and 16.5% VAT²⁴ Although these policies and procedures relating to quality standards of solar products are in place, there is no clear legal framework, and the importation of non-quality verified, and counterfeit products is a major challenge in Malawi. This largely affects the distribution of pico-solar systems and solar home systems.²⁵

To combat this, the government has worked with the MERA, and the MBS to adopt Lighting Global standards as laid out in the 2017 Malawi Renewable Energy Strategy.²⁶ In March 2020, the MRA, MBS and MERA signed a memorandum of understanding to coordinate the monitoring of quality standards.²⁷ In

¹¹ <https://data.worldbank.org/country/malawi>

¹² Visit the [Malawi Sustainable Energy Investment Study](#) for further information.

¹³ Visit the [Community Energy in Malawi: An Annotated Bibliography](#) for further information.

¹⁴ <https://www.energy.gov.mw/service/malawi-rural-electrification-Program/>

¹⁵ <https://rise.esmap.org/data/files/library/malawi>

¹⁶ [Malawi National Energy Policy, 2018](#)

¹⁷ [Malawi Renewable Energy Strategy, 2017](#)

¹⁸ [Malawi National Energy Policy, 2018](#)

¹⁹ [Malawi Growth and Development Strategy \(MGDS III\)](#)

²⁰ [Malawi National Energy Policy, 2018](#)

²¹ [Malawi National Energy Policy, 2018](#)

²² Visit the [Malawi Energy Regulatory Authority \(MERA\)](#) for further information

²³ Visit the [Malawi Bureau of Standards](#) for further information

²⁴ <https://www.mra.mw/press-releases/amendments-to-the-customs-and-excise-tariffs-order>

²⁵ [Stand Alone Solar \(SAS\) Market Update – Malawi, 2021](#)

²⁶ [Malawi Renewable Energy Strategy \(MRES\)](#)

²⁷ <https://www.mra.mw/news/mra-mbs-sign-mou-to-curb-import-of-sub-standard-goods>

2021, the MBS finished constructing a designated laboratory testing facility for Renewable Energy Technology equipment including solar products, and the procurement of the testing equipment is being funded by the UNDP's ACRE Project.²⁸ Community Energy Malawi (CEM) together with MERA have embarked on regular sensitization campaigns in the rural areas to end the sale of sub-standard solar products.²⁹

The National Waste Management Strategy (2017 - 2022)³⁰ recognizes e-waste as an emerging waste stream but there is no specific policy and legal framework regulating its waste management. The Malawi Environmental Management Act 2017³¹ however establishes a legal framework for waste management of hazardous waste coordinated by the Environmental Affairs Department (EAD) which is part of the Ministry of Natural Resources, Energy and Environment. In 2020, the Malawi Communications Regulatory Authority (MACRA) in collaboration with the EAD requested assistance from the International Telecommunications Union (ITU) to develop a national e-waste management policy.³² The policy is currently being drafted.

Taxation

The Minister of Finance, Economic Planning and Development announced new tax measures under Government Notice Number 66 for customs and excise in September 2019 aimed at lowering the final price of SAS to stimulate uptake among low-income un-electrified communities.³³ This included the introduction of zero-rating of solar products and components from import duty, excise duty, and the 16.5% VAT. Despite the existing tax policy, it was reported in 2021 that the MRA is still taxing renewable energy products, an issue which has since been taken up by the Renewable Energy Industries Association of Malawi (REIAMA).³⁴

Investments

In December 2021, Fund manager SunFunder announced that it is providing a US\$4 million loan facility to Yellow Solar Power. Yellow Solar is a Lilongwe-based off-grid start-up that distributes solar home systems that improve access to electricity in rural Malawi. The funding is intended to improve

its operational efficiency in Malawi and support the company's growing sales of solar home systems.³⁵ With over 110,000 units sold, Yellow has improved energy access for more than 400,000 people, mitigating 12,000 tons of CO2 emissions per year as they replace kerosene with clean solar lighting and other devices. The company has also created over 800 local jobs.³⁶

Industry Association

The Renewable Energy Industries Association of Malawi was established in 1999 to promote renewable energy technologies (RETs). Members of the association include individuals, companies, organizations, projects, and programs with verifiable interest in the promotion, production, supply, importation, exportation, installation, and servicing of RETs in Malawi.³⁷ 80% of the membership is comprised of solar companies. The association was instrumental in lobbying for the 2019 VAT exemption, and they continue to lobby for the implementation of the tax exemption for solar products.³⁸ The association has managed to get funding from the Humanist Institute for Cooperation with Developing Countries (HIVOS) and German Corporation for International Cooperation (GIZ) for capacity building and continues to look for further support.³⁹

Sector Support Programs

The Rural Energy Access through Social Enterprise and Decentralization (EASE) is funded by the Scottish Government's Malawi Development Program and has been running since 2018 to 2023. It is being implemented by the University of Strathclyde, and partners United Purpose, Community Energy Malawi, and the University of Malawi WASHTED Centre. The EASE project works to address energy poverty in marginalized communities in Dedza and Balaka districts through the deployment of appropriate renewable energy infrastructure and service provision, developing sustainable social business models and supporting the delivery of national policy regarding energy access and decentralization.⁴⁰

The USAID-Power Africa Solar Home System (SHS) Kick-Start Program for Malawi was launched in 2019. This was a three-year program designed to

²⁸ https://procurement-notices.undp.org/view_notice.cfm?notice_id=78614

²⁹ <https://mera.mw/2020/11/22/communities-encouraged-to-make-better-rets-choices/>

³⁰ The National Waste Management Strategy

³¹ The Environmental Management Act (2017)

³² <https://www.itu.int/en/ITU-D/Environment/Pages/Spotlight/WEEE-Policy-Support-Malawi.aspx>

³³ <https://www.mra.mw/press-releases/amendments-to-the-customs-and-excise-tariffs-order>

³⁴ <https://conrema.org/2021/01/25/policy-inconsistencies-worry-renewable-energy-players/>

³⁵ <https://www.sunfunder.com/post/yellow-malawi>

³⁶ <https://www.afrik21.africa/en/malawi-sunfunder-finances-yellows-solar-kits-with-a-4-million-loan/>

³⁷ Visit the Renewable Energy Industries Association of Malawi (REIAMA) for further information

³⁸ Stand Alone Solar (SAS) Market Update – Malawi, 2021

³⁹ Stand Alone Solar (SAS) Market Update – Malawi, 2021

⁴⁰ Visit the EASE Project for more information.

expand energy access and grow the private sector in Malawi by providing SHS companies with streamlined access to a wide array of support, including operational support, working capital, and a US\$1.5 million results-based financing (RBF) grant facility to help private sector SHS companies scale operations and sales in rural and urban communities.⁴¹

The government of Malawi with support from the World Bank is implementing the Malawi Electricity Access Project as part of the implementation modalities for the National Energy Policy of 2018.⁴² The project will be implemented for a five-year period starting from January 2020 by the Department of Energy Affairs and Electricity Supply Corporation of Malawi (ESCOM). The US\$15 million off-grid component was rolled out in 2021, 70% which will be channelled through a debt facility and the remainder going to results-based grants to distributors.⁴³

The Energising Development (EnDev) Malawi commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ) has been running since 2012 and ended in 2021. It is jointly funded by the Netherlands, Norway, UK, Sweden, and Switzerland. EnDev Malawi supported small-scale off-grid solar solutions and implemented a pico-PV project, as well as improved cooking technologies, for the population in rural areas.⁴⁴

The UNDP in Malawi has been a long-standing key player and partner working with the Malawi Government and launched the US\$4.5 million Access to Clean and Renewable Energy (ACRE) Project (2020 - 2023). The implementing partner is the Department of Energy Affairs within the Ministry of Natural Resources, Energy and Mining. A key output of the project is inclusive and sustainable solutions adopted at the national and subnational levels to achieve increased energy efficiency and universal modern energy access, especially off-grid sources of renewable energy. The project also seeks to develop a strengthened regulatory and institutional capacity for improved energy sector coordination, research, and development enhancement.⁴⁵

Malawi is also part of the Africa Clean Energy Technical Assistance Facility (ACE-TAF), an FCDO funded program that aims to catalyze a market-based approach for private sector delivery of renewable energy electrification technologies, with a

focus on high quality SAS systems.⁴⁶ ACE TAF is scheduled to end in July 2022.

Opportunities and Barriers

There have been complaints from industry players paying import duty and VAT on RETs despite the tariff change, due to confusion between the MRA and Treasury in implementing the change.⁴⁷ The lack of coordination between the Malawi Energy Regulatory Authority (MERA) and the Malawi Bureau of Standards (MBS) to oversee and enforce quality control of solar products has also led to the widespread market penetration of sub-standard products. There are currently no legal frameworks in place which MBS can use to penalize those importing defective products. Additionally, despite MBS adopting an international test standard for PV modules, it does not require documented proof of compliance with the standard for products imported into the country. There has also been reported difficulty in controlling the supply of counterfeit goods imported through uncharted routes. Besides the institutional constraints, there is also limited consumer awareness to distinguish between products resulting in trade-offs in quality, value, and price.⁴⁸

Malawi remains one of the poorest countries in the world with a national poverty rate of 50.7%.⁴⁹ The high upfront costs of solar products make it unaffordable to potential customers. Credit is also inaccessible, with a lending rate of 12.1% as of 2020, and financial institutions are reluctant to provide loans for the purchase of household solar products. MFIs also lend at interest rates ranging from 10% to 20% a month. To counter this, most of the 47 SACCOs in the country purchase solar PV products in bulk and sell it to their members on credit.⁵⁰ Most of the distributors are in urban and peri-urban areas because of the unproven existing market and supply chains in rural areas. The USAID Kickstarter program is addressing this barrier by providing results-based financing (RBF) and links to creditors.⁵¹

Commercial banks in Malawi have high lending rates averaging 25% and none have specific products for SAS companies. Investment in the sector is constrained by inflation, and foreign exchange volatility of the Malawian Kwacha reducing affordability.⁵²

⁴¹ <https://www.usaid.gov/malawi/news/power-to-the-people>

⁴² [Malawi National Energy Policy, 2018](#)

⁴³ Visit the [Malawi Electricity Access Project](#) for further information.

⁴⁴ Visit [EnDev Malawi](#) for more information.

⁴⁵ Visit the [Access to Clean and Renewable Energy \(ACRE\) Project 2020](#) for further information.

⁴⁶ Visit [Africa Clean Energy website](#) for more information.

⁴⁷ <https://www.mwnation.com/mra-summoned-over-solar-products-tax/>

⁴⁸ [Malawi Sustainable Energy Investment Study](#)

⁴⁹ <https://www.worldbank.org/en/country/malawi/overview#1>

⁵⁰ [Stand Alone Solar \(SAS\) Market Update – Malawi, 2021](#)

⁵¹ [Malawi Sustainable Energy Investment Study](#)

⁵² [Stand Alone Solar \(SAS\) Market Update – Malawi, 2021](#)

Further Information

- [Accelerating Access to Electricity in Africa with Off-grid Solar: Off-grid Solar Country Briefing: Malawi, The Clean Energy Solutions Center](#)
- <https://www.usaid.gov/powerafrica/malawi#Energy%20Sector>
- Impact of Tax Incentives on Access to Stand-Alone Solar: Policy recommendations from analysis in Malawi, Rwanda, and Sierra Leone (ACE-TAF, 2021)
- Malawi: Energy and the poor- unpacking the investment case for clean energy (UNCDF and UNDP, 2020)