

Sierra Leone

Introduction

This note was developed by GONGLA 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 Foreign Commonwealth & Development Office (FCDO), Sustainable Energy for All (SEforAll) and The Renewable Energy Association of Sierra Leone (REASL). 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 statistics²

Demographics

Total Population	7,967,985
Population Density per km ²	111
GDP per Capita	USD 484,5
GDP Growth	-4.2%

Energy Access Deficit

National Electrification Rate ³	23%
Urban Electrification Rate	51%
Rural Electrification Rate	2%
Number of people without access to electricity ⁴	6,039,615
% of quality-verified ⁵ (QV) vs non-QV products in the market ^{6&7} (H1, 2021)	QV: 95% Non QV:5%

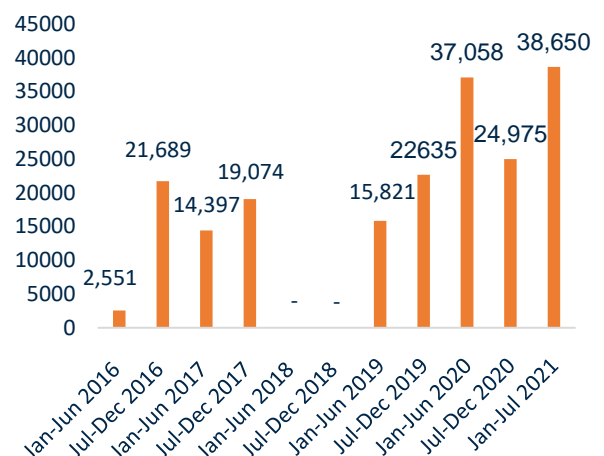
Electrification Planning

Electrification Targets ⁸	Electrification rate of 92% by 2030
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Impact⁹

69,197 people currently accessing Tier 1 energy services	37,458 people currently accessing Tier 2 energy services
200,491,725 additional light hours unlocked for study, productive tasks or leisure time	193 change in quality of light in lumens per household
607,342 people currently living with improved energy access	

Sales¹⁰



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

¹ The information and views expressed in this brief are GONGLA'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/> (last updated in 2020)

³ No recent data on the national electrification rate has been published by the government of Sierra Leone

⁴ <https://trackingsdg7.esmap.org/> (last updated in 2019)

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 GONGLA 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 https://www.se4allafrica.org/fileadmin/uploads/se4all/Documents/Country_PANEE/Sierra Leone National Energy Efficiency Action Plan.pdf

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 global 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 GONGLA 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

While access to energy in Sierra Leone has improved since 2000, it remains a national challenge. The electrification rate has doubled to 23% between 2000 and 2020. Access in urban areas currently stands at 51%, while access in rural areas electrification is just 2%.

Due to the Ebola epidemic, which severely affected the people and economy of Sierra Leone, the government prioritized off-grid solutions to improve access to energy¹¹. Connecting remote areas to the national grid remains uneconomical and consequently, the government has shown support for off-grid solutions.

In 2020, the COVID-19 pandemic has disrupted national economic activities and impacted changes in global trade. Before the start of the pandemic, Sierra Leone's economy was expected to grow by 4.2% in 2020, however since the outbreak of COVID-19, GDP is expected to contract by 3.1%.¹²

The pandemic has impacted the sales of products with a 33% decrease in sales volume in the second half of 2020 compared to the first half of 2019, and sales volumes reaching 25,000 units. However, the first half of 2021 broke a sales record reaching 38,650 units.

Policy, Regulation and Sector Planning

The benefits of off-grid energy are officially recognized by the government of Sierra Leone through the National Energy Policy¹³ (NEP) (2019) and the National Energy Strategic Plan¹⁴ (2019). These policies aim to increase access to energy in rural areas and prioritize small-scale decentralized solar power supplies.

The National Renewable Energy Policy¹⁵ (NREP) (2016), supports the domestic solar sector to improve the adoption of renewable energy. According to NREP, by 2030 approximately 37% of the rural population is expected to be served by renewable energy, either through mini-grids or standalone renewable energy systems.¹⁶

Promoting Quality & E-Waste Management

The influx of low-quality and counterfeit products puts consumer protection and sustainable market development at risk. Standards for household PV products are not well clarified, and guidelines on how they should be interpreted are not yet present.

In 2015, as part of the Sierra Leone Energy Africa Compact¹⁷ with the UK government and the government of Sierra Leone stated its intent to implement IEC global quality standards.

The government of Sierra Leone published the National Policy Roadmap on Integrated Waste Management¹⁸ in 2015. This policy includes e-waste and electronic equipment and other waste streams.

Taxation

Sierra Leone has a Value Added Tax (VAT) of 15% and import duty of between 5% to 20% for solar products. There are exemptions for import duty and VAT but they are not universally applicable and are approved on a case-by-case basis.

Investments

NEot Offgrid Africa (NOA) is an investment platform that supports and accelerates the energy transition in Africa by multiplying investment projects with the best technology and operations partners in the off-grid energy sector. In 2021, NOA invested in mini-grid projects in Uganda and Sierra Leone¹⁹. The project has a portfolio of US\$16 million and plans to equip 24 mini-grids in the districts of Tonkolili, Koinadugu and Bombali. In addition, 6000 portable batteries will also be installed. The project will also provide the internet to communities through partnerships with telecommunications operators

¹¹ <https://infracoafrica.com/fr/project/sierra-leone-mini-grid/>

¹² <https://www.greengrowthknowledge.org/sites/default/files/downloads/resource/UNDP-rba-COVID-assessment-SierraLeone.pdf>

¹³ <http://www.energy.gov.sl/NATIONAL%20ENERGY%20POLICY.pdf>

¹⁴ http://www.ecowrex.org/system/files/repository/2009_energystategicplan_minener.pdf

¹⁵ http://www.energy.gov.sl/PR_Renewable%20Energy%20policy%20of%20SL_FINAL%20for%20Print.pdf

¹⁶ https://www.se4all-africa.org/fileadmin/uploads/se4all/Documents/Country_IPs/Sierra_Leone_Investment_Prospectus.pdf

¹⁷ <https://rise.esmap.org/data/files/library/sierra-leone/Energy%20Access/EA%2014.1.pdf>

¹⁸ <https://www.resilientinstitutionsafrica.org/sites/default/files/2018-08/%5BSierra%20Leone%5D%20National%20Policy%20Roadmap%20on%20Integrated%20Waste%20Management%20%282015%29.pdf>

¹⁹ <https://www.neotcapital.com/neot-offgrid-africa-renforce-son-portefeuille-de-mini-grids-en-afrique-subsaharienne/>

Sector Support Programs

Sierra Leone is part of the 19 countries under the Regional Off-Grid Electrification Project (ROGEP) project.²⁰ ROGEP is a US\$333.7 million project supported by the World Bank. ROGEP aims to enhance electricity access in West Africa and the Sahel region through Stand Alone Solar systems and is scheduled to end in 2030.

In 2021, the British government launched the "Moyamba" project²¹ developed by a private mini-grid developer Enercity (SL). The British government is granting a US\$ 1.25 million loan to finance the mini-grid project in rural areas of the country. The Moyamba project will allow the construction of 32 mini-grid sites as part of Sierra Leone's Rural Renewable Electrification Program (RREP). The RREP was initiated following the 2014 Ebola epidemic, to support a struggling healthcare system. The mini-grids will provide access to electricity to nearly 80,000 people, with a combined renewable energy capacity of 1.3MW and prevent more than 2,800 tonnes of greenhouse gas emissions per year. In addition, the loan will provide a minimum daily amount of free electricity to community health centers.

The Rural Renewable Electrification Program²² is a United Kingdom Foreign Commonwealth & Development Office (FCDO) funded project, implemented by the United Nations Office for Project Services (UNOPS) and PowerGen. This 20-year public-private partnership with the government of Sierra Leone aims to build, finance and develop a portfolio of diesel-hybrid and battery-powered solar mini-grids. These networks currently serve nearly 12,500 customers across the southern and eastern regions of Sierra Leone. It is expected that 85% of the connections will be allocated to households and 15% to micro, small and medium enterprises, as well as public institutions, such as schools and clinics. The project is expected to stimulate job creation and positively impact living conditions in rural Sierra Leone.

²⁰<https://projects.worldbank.org/en/projects-operations/project-detail/P160708>

²¹<https://repp.energy/fr/resource-enter/news/mini-grid-project-focuses-on-human-impact/>

²² For more information about the RREP visit [InfraCo Africa](#) and [UNOPS](#)

²³<https://www.assets.signify.com/is/content/Signify/Assets/signify/global/20201105-mapping-the-off-grid-solar-market-in-sierra-leone-2019.pdf>

Industry Association

The Renewable Energy Association of Sierra Leone (REASL) is a trade association focused on the development of an efficient and thriving renewable energy market in Sierra Leone. REASL was formed in 2016 as a direct response to the Energy Africa Compact, a UK AID initiative that partners with governments and donors to accelerate energy access through a market-based approach.

Opportunities and Barriers^{23&24}

Sierra Leone benefits from import duty exemptions that contribute to creating an enabling environment for off-grid solar companies. However, it is essential to maintain this environment through periodic reviews of the exemptions and support stability between private and public actors. Long customs clearance procedures can lead to delays which create operational and financial difficulties.

One of the barriers facing the off-grid solar sector in Sierra Leone, is poor access to enterprise finance. The interest rates charged by commercial banks are significant, due to the high risk of companies in the sector. Risks are associated with the fact that most suppliers of products in the off-grid energy sector sell their products in dollars or euros while customers pay in local currency. Consequently, any devaluation of local currencies poses risks. Additionally, there is a lack of sufficient banking and financial institutions to facilitate fund transfers locally or internationally.

There is also limited technical capacity in the off-grid solar sector. Local companies are forced to significantly invest in technical training for successful implementation of their business models which impacts their activities.²⁵

²⁴<https://www.ace-taf.org/wp-content/uploads/2021/06/Sierra-Leone-Impact-of-GST-and-Import-Duty-Exemptions-on-SAS-Policy-Brief.pdf>

²⁵<https://www.ace-taf.org/wp-content/uploads/2021/06/Sierra-Leone-Impact-of-GST-and-Import-Duty-Exemptions-on-SAS-Policy-Brief.pdf>

Further Information

- [Rapid Assessment Gap Analysis Sierra Leone](#)
- [Sierra Leone Sustainable Energy For All \(SE4ALL\) Country Action Agenda](#)
- [Sierra Leone: Investment Prospectus](#)
- [Sierra Leone National Energy Efficiency Action Plan](#)
- [Sierra Leone National Renewable Energy Action Plans](#)
- [Increasing Energy Access in Sierra Leone - Mini-grid survey analysis on tariffs, subsidies and Productive Use](#)