

OPPORTUNITIES AND TRENDS BRIEF

February 2021

Sierra Leone: A sizeable market with potential

5.8m

Unelectrified Population¹

7.8m



Total Population²



105

People per km²
Population Density

69



out of

100

Framework for Stand-alone Systems Score

Regulatory Indicators for Sustainable Energy (RISE).³

48

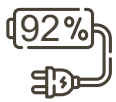
out of

100

PAYG Market Attractiveness Index (Score)⁴

92% by

2030



Government target for universal electrification.

163

out of

190



Ease of doing business rank⁵



2

Donor Programmes supporting SAS



Analysis shows that

585,908 households (42.1% of the population)

would be best reached by off-grid stand-alone systems by 2023⁶. The country currently has 100MW of installed capacity mainly from hydropower and a number of solar mini-grids that are coming up.



Development partners

are supporting the deployment of various productive uses of solar – including for business, institutional and agricultural uses.



Stand-alone solar sales more than doubled

from 16,000 units in January-June 2019 to 38,456 over the same period in 2020 – though the reason for this jump is not clear. Cash sales are thought to account for over 70% of sales.

Microfinance Institutions (MFIs)

have a significant market share in Sierra Leone (44%) and could be helpful in enhancing affordability of SAS products among consumers⁷.

Government has provided some support

- » As part of Government's process to review the existing Energy Policy, the Africa Clean Energy Technical Assistance Facility has supported development of an Off-Grid Strategy and Action Plan.
- » Solar energy kits that meet IEC Quality Standards are exempted from import duty (25%) and Government Sales Tax (15%).
- » The Ministry of Energy is developing an Integrated Energy Resource Plan, that will include stand-alone solar.
- » A National Action Plan for Gender Mainstreaming in Energy Access was established in 2020.

There is need for more commercial investment



In total, around **USD 43 million** in development support has been deployed in the SAS sector, 65% of which comprised technical assistance or capacity building.



There is an estimated **USD 204 million** investment gap in commercial capital, concessionary capital, and subsidies needs to be filled for SAS to play a greater role towards universal access by 2030⁸.

Other trends we're seeing...

Membership at the Renewable Energy Association of Sierra Leone has increased to 40 members.

An Off-Grid Task Force under the leadership of the Ministry of Energy is identifying and addressing challenges affecting OGS.

About 33% of the population (mostly women) belong to Osusus (small informal savings and credit groups) and derive most of the loans they need for energy and other services from them⁹.

However, there are some key challenges...



Limited consumer awareness of stand-alone solar as people are more conversant with mini-grids.



Affordability constraints for up to 66% of the rural population and 31% of the urban population who live on less than USD 2 per day. This has been made worse by the COVID-19 pandemic.



Limited commercial capital has been deployed to date, and the gap in required investment remains large. Impact investors have provided the bulk of commercial capital, to a small number of predominantly internationally-led or -founded SAS businesses.

More support is needed to promote growth

Impact investors could:

Establish guarantee facilities to address the high cost of hedging instruments, high cost of local currency transactions and unlock more financing for SAS.

Provide patient capital for early stage SAS companies.

Combine direct investment with technical assistance to support local SAS companies to absorb financing and attract follow-on capital.

Development partners and financial institutions can play a catalytic role by:

Supporting SAS companies in accessing local currency debt by leveraging existing guarantee funds that de-risk small and medium enterprises. Networking and matchmaking to potentially increase access to funding for local SAS companies.

Developing human capital, particularly technical skills to improve investor confidence in the sector.

Working with government to design end-user financing interventions¹⁰ such as subsidies for the most vulnerable communities.

SAS can significantly contribute to universal energy access with more government support on:

A policy framework that has a target for SAS.

Establishing a national off-grid programme that includes SAS.

A funding facility to support SAS companies and vulnerable communities.

In conclusion

The Sierra Leone SAS sector has untapped potential. More financial, technical and government support is needed to build a sustainable SAS market that will contribute to universal energy access.

References

¹IEA (2019) Africa Energy Outlook

²World Bank (2019) Population data

³ESMAP (2020) Regulatory Indicators for Sustainable Energy (RISE)

⁴Lighting Global (2019) PAYG Market Attractiveness Index

⁵World Bank (2020) Doing Business

⁶UNDP 2020, Assessment of the socio-economic impact of COVID-19 in Sierra Leone

⁷World Bank (2018), Project Information Document/ Integrated Safeguards Data Sheet (PID/ISDS): World Population Review (2020), Adult Population in Sierra Leone: MFI penetration is a calculation based on % of adults served by formal financial institutions and MFIs customer base

⁸Ecowas Centre For Renewable Energy and Energy Efficiency (ECREE, 2019), Off-Grid Solar Market Assessment & Private Sector Support Facility Design

⁹SEFA 2020. Mini-Grid Market Opportunity Assessment: Sierra Leone

¹⁰ACE TAF (2020) Demand-side subsidies in off-grid solar: a tool for achieving universal access and sustainable markets