

Sierra Leone: Impact Assessment of Goods and Services Tax and Import Duty Exemptions on Stand-Alone Solar Products

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Africa Clean Energy
Catalysing Africa's Solar Markets



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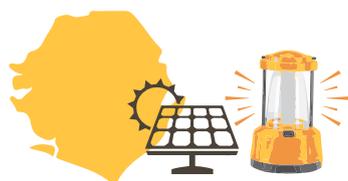
Introduction

Background

The importance of standalone solar (SAS) products is now well recognised by governments across Sub-Saharan Africa, which deploy a range of policies to support the growth of the sector. Geospatial least cost electrification plans underline the importance of SAS technologies to achieve universal energy access targets, as they often represent the most cost-effective way of providing electricity to unserved households in sparsely populated rural areas, where it is expensive and impractical at least in the short-term to extend large grid infrastructure, and where customers often have relatively low ability to bear the financial cost of energy access.

In recent years there has been a significant scale-up of the SAS sector in Sierra Leone. The number of SAS product importers rose from just five in 2015 up to 27 today. SAS products now reach over 83,000 households – 7% of the population, up from just 0.8% of households in 2015. Over 8% of rural households used solar products for lighting in 2018, and 4% of urban households, compared to less than 1% for each rural and urban household, respectively, in 2015.

The policy recommendations in this brief aim to support progress towards achieving universal access to clean, modern, and sustainable energy. Essential to realising this objective and maximising the benefits delivered by off-grid energy solutions are:



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- 1** to increase the pace of deployment of SAS technologies
- 2** to promote the development of sustainable business models that match end-user needs and affordability while fostering a commercially sustainable marketplace
- 3** ensuring only high-quality products that deliver maximum value and ensure safe and trusted access to energy
- 4** promoting access to products that boost the livelihoods of households and communities

Study Objectives and Methodology

This policy brief summarises the findings and recommendations a technical report on the impact of Goods and Services Tax (GST) and import duty exemptions for SAS technologies on boosting access to energy for all. It describes the trade-offs that need to be made between the short-term revenue that could be gained from levying import duties and GST today, against supporting the growth of the SAS sector and the broader fiscal, economic, social and environmental benefits that a vibrant SAS sector could deliver in the coming five years.

This assessment was carried out by the Africa Clean Energy Technical Assistance Facility (ACE TAF) to support the Ministry of Energy (MoE). It forms part of a broader package of cooperation between ACE TAF and the Sierra Leone Ministry of Energy, including supporting the revision of the updated Energy Compact in 2019 and driving an ambitious agenda for the standalone solar industry.

This policy brief is based on a mixed methods approach, combining quantitative impact modelling, literature review, and stakeholder engagement. The ACE TAF responsible taxation impact assessment tool is used to estimate the costs and benefits of GST and import duty exemptions, drawing on qualitative inputs and information collected through workshops and semi-structured bilateral discussions with 14 experts and representatives of the private sector and key government agencies in Sierra Leone.

Findings of the Study

The findings presented below compare the potential development of the SAS sector if GST and import duty exemptions are maintained against a scenario where both taxes were applied. The comparison scenario is hypothetical – exemptions have been in place since the market began to scale up in 2014 – and assume standard rates of 20% for import duties and 15% GST.

Fiscal Impacts

Considering the revenue generated from GST and import duty before the exemptions, the results showed that the revenue generated from GST and import duty before the exemptions were implemented ranged from around USD 2,400 in 2011 to USD 35,000 in 2015. See Figure 1 below.

This foregone revenue from tax exemptions is at least partially offset by the potential contribution of the SAS industry to corporation tax and income tax on professionals in the SAS value chain. Given the still very early stage of development of the industry in Sierra Leone, these more “direct” forms of taxation could dwarf the annual GST and import duties foregone relatively quickly, with withholding income taxes on imports of USD 515,000 expected in the next five years as the sector grows.



Figure 1: Revenue generated from GST and import duty 2011 and 2015

Between 2016 and 2020, an annual average of USD 43,000 was collected as revenue from five years GST and two years import duty (Data from NRA). Import duty and GST were levied on SAS products that were imported but did not meet the IEC quality standards, those that qualified were exempted. There was an increase in average annual revenue from import duty and GST from USD 13,400 between 2011 and 2015 to USD 43,000 between 2016 and 2020. Even though there were no full tax levies as there were no import duty levies between 2018 and 2020, the revenue increased by more than 3-fold during the period. Applying full GST and complete import duties for SAS products in Sierra Leone could generate an additional USD106,680, annual average in national revenue between 2021 and 2025, and total exemption of GST and import duty could mean a loss of such revenue.

Job Creation

In recent years, employment in the SAS sector has grown 20-fold, albeit from a very low starting point. Prior to 2015, there were only five SAS importers and distributors, with employment estimated to be only around 50 full-time equivalent employees. Growth of the sector – encouraged to a large extent by the commitment to GST

and import duties over this period – has now attracted a total of 27 SAS importers, with employment estimated to be around 1,000 employees.

The potential of the sector is vast, and if it reaches an ambitious but achievable growth trajectory, employment could reach up to 3,000 in the coming five years. These jobs provide a range accessible to both skilled and low-skill labour, and often in the formal sector, supporting a transition to a green and professionalised economy.

Livelihood Uplift and Benefits to End-Users

The economic benefits to households from accelerated access to SAS technologies greatly outweigh the foregone tax revenues. Household savings increase as the uptake of SAS products increases. Before 2016, household savings from using SAS products were USD 253,093 per annum when only 0.8% of households were using SAS products. In comparison, between 2016-2020, 7% of households were using SAS, and the savings increased to more than USD 2m against the foregone revenue of USD 42,000 from taxation.

Up to 32,000 households could be using their SAS product to drive income-generating activities by 2025. This will fall to just 27,000 if GST and import duties are levied. These downstream jobs are vital, as they improve the economic welfare and independence of families and communities, often in poor rural areas with limited opportunities to participate in valuable monetary activities. In terms of economic value, these productivity gains for additional households gaining access to SAS technologies as a direct result of the tax exemptions could be worth USD 1.5 million per year by 2025. These benefits are often relatively concentrated among women and people in deprived communities, who stand to gain the most from access to energy in the household.

Additional non-financial benefit to users includes improved health and safety and lighting for education. Property loss due to fire accidents is a real risk for households reliant on traditional wood fuels and kerosene for lighting, and these losses would be reduced as the sector grows. Even a small increase in access to safer SAS technologies could begin to make a valuable contribution to mitigating these risks.⁵ Furthermore, one of the main benefits of access to SAS technologies is available lighting for study in the evenings, which would power 379,640 study hours per day for children living in SAS households over the next five years.

The Contribution of GST and Import Duty Exemptions

The contribution of the tax exemptions to the sector's growth in the last five years – and potential expansion in the coming years – comes through both a direct and an indirect effect.



Direct: reduced prices and boosting affordability. First and foremost, the exemptions make SAS technologies more affordable to a greater proportion of the population. In Sierra Leone, where the [average income or average expenditure on HH energy access is less than USD 2 per month, this price effect is extremely important.



Indirect: an enabling environment conducive to private sector activities. Investors and project developers are better able to commit to market entry and expanding their activities with a stable and supportive enabling environment. Tax incentives are an important contributor, especially while the market is young and still on a path to maturity as is the case in Sierra Leone, both as lower taxes help expand the size of the potential market through the direct effect mentioned above, and also because they can ease the administrative and logistics processes of importing quality products

Furthermore, given that the target customer base for SAS products is predominantly rural and often relatively poorer households, tax exemptions are “progressive”. That is, the exemptions go to the benefit of people who are least able to bear the cost of taxes and support access to basic goods and services enabled by SAS technologies – often far beyond “energy” and including access to a bundle of information and communication services and household appliances.

5. National Fire Force Annual Report 2018

Policy Recommendations



Maintain both GST and import duty exemptions. The SAS sector is still growing into a vibrant private sector that can reach the poorest and most remote communities. Tax exemptions are a crucial part of a favourable enabling environment to help the market achieve scale, commercial viability and provide much needed access to energy and other services for households and small businesses.

The exemptions should be maintained with a clear process for periodic review. Stakeholders in the SAS market should continuously engage with Parliament to review the exemption policy as the country progresses closer to universal access and as companies achieve scale and begin to see stable profit margins. A clear framework such as periodic reviews would provide stability for investors and help coordination among public and private sector stakeholders.



Ensure exemptions are clearly tagged to quality-verified products to build consumer confidence. Low-quality products represent a dual risk as they both (1) undermine consumer confidence in SAS products and (2) reduce potential government revenue not only from GST and import duties but from corporation tax and income taxes that could be generated from informal-sector SAS value chains.

A clear list of quality-verified exempt products must be clearly articulated and maintained. The MoE should work with the Renewable Energy Association of Sierra Leone (REASL) to establish a clear and easy to understand list of products, equipment and appliances that qualify for exemptions. These should meet the relevant IEC quality standards.



Coordination and capacity building. Strengthen coordination among national and international partners involved in the SAS products market; REASL, GOGLA, IFC Verasol and the Bureau of Standards should build synergy in the certification of SAS products to ensure that compliant products are imported and exempted from taxation. The Off-Grid Working Group (OGWG) should strengthen coordination among stakeholders in the energy sector especially dealers and distributors SAS products to ensure that prices of SAS products are affordable and match with the exemptions.

Capacity-building should also focus on enforcing quality standards. The Consumer Protection Agency should be engaged to discuss quality issues surrounding the importation of solar products. The capacity and capabilities of the Standards Bureau's should be supported to test and confirm the quality of SAS products to facilitate the importation process and ensure there is a robust legal framework and enforcement mechanism for the importation of products that meet IEC standards and exemptions granted to quality-verified products.



Consumer awareness-raising: The MoE, REASL, and partners should work to facilitate consumer education and awareness campaigns that will cement the household solar category as a superior and affordable alternative. Awareness of solar products and home systems is low, and quality perception is mixed. Both retailers and consumers have no way of judging quality or differentiating high-quality products from low-quality products.



Developing additional targeted financing mechanisms: While tax exemptions are a crucial part of enabling the SAS industry to scale up and develop commercial maturity, they alone will not be enough to reach all households. Targeted supply side and/or demand side subsidies should support access for those unable to bear the full cost of an entry level solar product, while companies may need further support in accessing international and local currency credit lines.



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