

## OPPORTUNITIES AND TRENDS BRIEF

February 2021

# Nigeria: One of the largest addressable markets for stand-alone solar in the world

# 77m

Unelectrified Population

# 201m



Total Population



# 215

People per km<sup>2</sup>  
Population Density

# 67

out of

# 100



Framework for Stand-Alone Systems Score.

Regulatory Indicators for Sustainable Energy (RISE)

# 74

PAYG Market Attractiveness Index Score



# 2030



Government target for universal electrification.

# 131

out of



# 190

Ease of doing business rank

# 3

Donor Programmes supporting the SAS enabling environment.

# 5

Offering direct market support.

# \$14b



Spent on petrol and generators annually.



**Government promoting SAS through:**

Nigeria Electrification Project (NEP).

Solar Power Naija Programme.



Greater penetration of SAS products in urban areas than rural areas due to frequent power shortages that cost the country an estimated **\$2.8 billion annually<sup>1</sup>**.



Annually, **certified SAS** are reaching



**less than 2%** of Nigeria's addressable market - though the penetration of non-certified products is arguably much higher.



The lockdown, as a result of Covid-19, led to increased recognition of the role of stand-alone solar in powering **healthcare facilities, homes and small businesses.**



**Increased focus on productive use**

is supporting the country's transition from petrol generators to renewables systems.

## But global and national COVID-19 response measures have contributed to...



### 17 million

Estimated Number of people falling into poverty.<sup>2</sup>



Worsening of currency volatility and GDP decline already underway as a result of 2019/2020 oil shocks, though 2021 projections show stabilisation and recovery.



### A 28% drop in certified SAS sales

in the first half of 2020 compared to the prior six months. Most of this decrease was in cash sales; pay-as-you-go (PAYG) sales remained unchanged though customer defaults increased.

## The Federal Government aims to connect households through SAS and is improving the enabling environment.

Agencies including the Rural Electrification Authority (REA) and Central Bank of Nigeria (CBN) are promoting SAS through:



Deployment of over 120,000 Solar Home Systems under the SHS components of the Nigeria Electrification Project (NEP) and the Rural Electrification Fund (REF).



Addition of a COVID-19 component in the Nigeria Electrification Project (NEP) that involves powering healthcare centres around the country using SAS<sup>4</sup>, and



The 5 Million Solar Connections Facility which also targets to create 250,000 new jobs and includes incentives for local assembly and manufacturing.<sup>5</sup>



New investor protection, consumer protection and mobile money regulations reduce uncertainty and reassure markets. Guidelines regulating microfinance institutions are being revised with the aim of mitigating risk exposure.



State governments are beginning to domesticate the national renewable energy policy.

## The flow of finance into the supply chain is growing...



The Nigerian SAS market has attracted approximately **USD 227 million** from a range of investors between 2015-2020 – mostly for big international players.

But **80% of solar retailers** still operate without any credit line<sup>6</sup> – an opportunity for impact investors to explore innovative ways of financing this category that has been left out by existing financing models.

## Other trends we're seeing...

**Membership of the Renewable Energy Association of Nigeria (REAN)** is up to **125**. The Association has internal committees on both solar home systems and mini-grids to address challenges affecting the sub-sectors.

**Mobile transactions** are skyrocketing, albeit from a low base – up more than **tenfold** in 2020.

**Availability of renewable energy training** Institutions is increasing the number of skilled personnel to work in the solar sector.

## But some challenges remain...

Lack of verifiable and accurate market data that enables SAS companies to plan strategically. Efforts to address this challenge have so far been fragmented.

Limited consumer awareness on where to purchase high-quality SAS products.

## In conclusion

Government support, increasing digital financial inclusion, new consumer lending options and a COVID-related boost all make for strong potential growth of the SAS market in Nigeria.

### References

- <sup>1</sup>World Bank (2020) Nigeria to keep the lights on and power its economy.
- <sup>2</sup>Kwaa et al (2020) Impacts of COVID-19 on food systems and poverty in Nigeria.
- <sup>3</sup>GOGLA (2020). Global Stand-alone solar Market Report (January–June 2020).
- <sup>4</sup>ESI Africa (2020). Nigeria: Rural Electrification Agency provides relief amid COVID-19.
- <sup>5</sup>REA (2020). FG launches Solar Power Naija – 5 million solar connection programme to off-grid communities.
- <sup>6</sup>ACE TAF (2021) Deep Dive – Nigeria market research – stand-alone solar (not yet published)

©2021 Africa Clean Energy Technical Assistance Facility

Read full report:  
[ACE-TAF Stand-Alone Solar SAS Market Update Nigeria.pdf](#)