



THE DIGITAL FINANCIAL SERVICES LANDSCAPE IN NIGERIA: ENABLING MARKET CONDITIONS FOR PAY-AS-YOU-GO SOLAR

Research Brief

The “pay-as-you-go” (PAYG) solar sector in Nigeria is operating in a highly complex market, which requires proactive dialogue and collaboration between multiple stakeholders at the confluence of clean energy provision, financial inclusion, and consumer protection. This USAID publication, *“The Digital Financial Services Landscape in Nigeria: Enabling Market Conditions for Pay-As-You-Go (PAYG) Solar Companies”*, provides a deep dive into the digital financial services industry in Nigeria, outlining the requirements for digital infrastructure readiness and the nuances behind current regulatory restrictions that are currently hindering this industry’s growth. Please refer to the full report for further details.

NIGERIA’S ELECTRICITY CHALLENGE: AN UNTAPPED ECONOMIC OPPORTUNITY

Nigeria has long been an economic heavyweight in sub-Saharan Africa. Nevertheless, 75 million Nigerians currently have no access to reliable electricity, limiting business growth and access to basic household services. The existing electrical grid is unstable and largely unavailable beyond urban city limits, forcing reliance on small-scale generators. Currently, the country spends more than USD \$9.2 billion annually on inefficient electricity generation, whereas a transition to renewable power, such as solar home systems, could save households and businesses over USD \$4.4 billion per year.

The PAYG solar financing model has proven highly successful in delivering affordable electricity to low income, rural consumers at scale, yet this business model has yet to flourish in Nigeria, which has greatly hindered off-grid energy access. Stringent Nigerian laws limit digital financial services, restricting solar companies to cash sales and limited customer bases. Without the basic infrastructure to support digital payments, solar companies and other national industries have severely constrained sales growth, limiting capacity to contribute to Nigeria’s growing economy and to the government’s goal of universal energy access. The International Monetary Fund estimates that a transition to digital payments, specifically mobile wallets, could save the Nigerian industry between USD \$5 to \$9 billion annually, while greatly increasing financial inclusion.

THE FINANCIAL PROMISE OF PAY-AS-YOU-GO SOLAR

The key to success for Nigerian rural electrification is affordability and scale. Solar companies providing PAYG energy services can reach large urban and rural customer bases, primarily by leveraging digital or text-enabled payment processing and customer service. Pay-as-you-go solar can also serve as a gateway to financial inclusion. A recent study estimates that 15-30% of PAYG solar customers complete a mobile bill payment and create a credit history for the first time through the purchase of a solar home system. PAYG solar customers also generate over twice as much revenue per user for a mobile money provider than an average customer. Credit history created by PAYG mobile payment plans can also provide low-income customers greater access to loans to cover basic family expenses such as school fees, which can consume up to 40% of a family’s annual income. This is a critical economic driver, as over 40% of Nigerians are either business owners or in the process of starting a business.

CREATING AN ENABLING ENVIRONMENT FOR PAYG SOLAR

While the Nigerian government is strongly committed to providing universal access to reliable electricity for all Nigerians, restrictive financial regulations and the high cost of mobile banking services has previously inhibited national energy access and financial inclusion targets. The Central Bank of Nigeria (CBN) limits licensing to a select network of authorized providers and specifically excludes mobile network operators (MNOs). While MNOs are able to host third-party authorized platforms on their telecom channels, they are unable to share in this revenue stream, providing little incentive for service expansion.

As a result, little investment has been made in digital payment platforms and business model innovation, and customer adoption levels remain extremely low. Most platforms are currently limited to the banked Nigerian population living in urban areas (less than 34% of the population), leaving rural communities with severely limited coverage. Cash payments dominate in rural areas, and solar companies struggle to deliver seamless customer service through insufficient digital infrastructure. This report outlines the necessary steps required to support a robust national infrastructure and enabling regulatory environment to maximize the off-grid solar sector's potential for high economic impact in Nigeria.

NEXT STEPS FOR NIGERIA: DONOR AND INDUSTRY RECOMMENDATIONS

This report is intended to foster debate and discussion around the following recommendations:

1. **Promoting a Holistic, Legally-Binding Regulatory Framework:** Engage with the CBN and Nigerian Communications Commission (NCC)'s current legal and regulatory framework review to determine how to consolidate into 3-4 enforceable laws with supporting regulations, drawing on international best practices. While mobile-enabled solutions should not be seen as the only "way to pay" that must be replicated in every market, digital payments have proven to be highly scalable for off-grid solar and other industries, but cannot flourish without a robust regulatory environment and enabling national infrastructure.
2. **Robust Consumer Protection:** Leverage the work being undertaken by the Smart Campaign and other government consumer protection initiatives to research and design an appropriate consumer protection framework for off grid solar in Nigeria. This should cover both the quality of the SHS, the financial terms by lenders and the standard consumer protection terms related to electronic payments. This initiative could be used to drive the need for change and spur the move toward responsible financing and consumer protection.
3. **A Customer-Centric National Agent Network:** Engage with the stakeholders involved in the CBN's Shared Agent Network Expansion Facilities (SANEF) initiative in order to provide additive funding and technical support. SANEF and other government initiatives could represent an ideal opportunity to test a multiple payment service provider strategy for PAYG solar and identify optimal distribution and payment mechanisms from a practical, technical, policy, legal and regulatory perspective.
4. **Promoting Interoperability:** Engage with industry stakeholders including CBN, NCC, the Nigerian Inter-Bank Settlement System (NIBSS), Interswitch and other current National Payment System participants and service providers to support any initiative required to ensure that all payment platforms in Nigeria are interoperable and that payments can be made from bank account to mobile money operator (MMO), and from MMOs to MMOs. While opening up the market to telecom may aid in assisting the CBN to meet its financial inclusion targets over the long run, this is not a silver bullet and the market will require a diverse DFS provider network.
5. **Maximizing Government Energy Access Pilots:** Engage the Rural Electrification Agency and current payment service providers to maximize the Energizing Economies Program - and future government pilots - as practical test cases demonstrating ideal legal and regulatory requirements, consumer protection provisions, and optimal business and financing models. Building upon the work that has already been done by the Nigerian Government, these pilots could prove ideal "mini regulatory sandboxes" to test innovation and promote advantageous legislation.

Please refer to ["The Digital Financial Services Landscape in Nigeria: Enabling Market Conditions for Pay-As-You-Go \(PAYG\) Solar Companies"](#) for further details.