



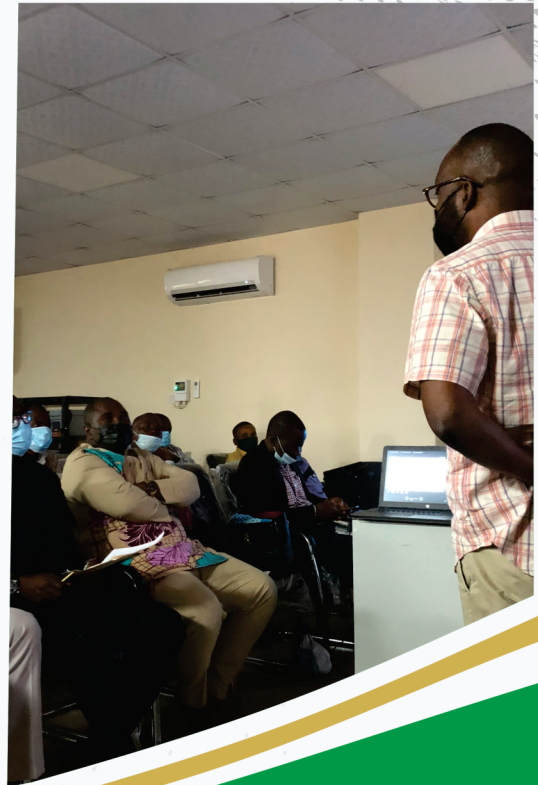
STANDALONE SOLAR PRODUCT TEST LABORATORY





PRIMARY FUNCTION

The SON Standalone Solar Product Test Laboratory is fully equipped with trained personnel to perform quality assurance testing of SAS products up to 350Wp according to IEC TS 62257-9-5:2018 and IEC TS 62257-9-8:2020 covering performance and safety. Product functions include lighting, mobile phone charging, as well as powering appliances such as fans, televisions and radios. Products typically include rechargeable batteries and solar modules with Direct Current system voltages not exceeding 35V and peak power ratings not exceeding 350Wp.





PURPOSE OF THE LABORATORY

The goal of SON Standalone Solar Product Test Laboratory is to support the development of off-grid market solutions for delivering quality, clean, safe, reliable, and affordable solar energy products by mitigating the influx of sub-standard SAS products into the market through testing. The laboratory is a trailblazer and the first of its kind in West Africa region. It will play an important role in setting the benchmark to ensure that the quality and performance of verified products meet or exceed standard requirements.

WHAT ARE SOME OF THE TESTS THAT CAN BE CONDUCTED?



The laboratory is equipped to carry out tests for off-grid solar energy products both for component and system based, as follow:

COMPONENT TEST:

- Photometrics: Luminous flux (lumens—total output), Standardized distribution (illuminance)
- Battery & Charge Control: Battery Capacity (Amp-hours, voltage), Degree of protection (voltage cutoffs)
- Solar module: Power output (Watts), Current-voltage characteristics (I-V Curve)
- Ports and Control Box Power capabilities and port efficiencies, Circuit protection
- Non-lighting appliances: Functionality and durability check, Power consumption, Battery tests as necessary

SYSTEM TEST:

- Full Battery Run Time: Measure single FBRT with lighting appliances as input to Energy Service Calculations
- Solar Charge Test: Measure single solar charge test as input to Energy Service Calculations
- Energy Service Calculations: Modeled estimate (full battery and daily hours of operation in various configurations)

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WHAT ARE SOME OF THE BENEFITS OF THE SOLAR LABORATORY?

- Support quality off grid market
- Ensure consistent product quality and reduce market spoilage
- Ensure more product choices and happier consumers
- Increased confidence in standards
- Increased ease of standards adoption
- Simplified regulations and import requirements





HOW CAN ONE ACCESS THE SON STANDALONE SOLAR PRODUCT TEST LABORATORY?

The process is simple!

Potential clients can physically visit the Lab Office or make an enquiry using the contact details provided. Details of the product (s) to be tested can be submitted to SON laboratory services by email. Thereafter, a quotation will be issued detailing the tests to be conducted. SON will provide the client with instructions for how the samples should be submitted for testing. A confidential test report is issued to the client after the results have been generated.



Working Hours

Monday to Friday 8:00hrs - 17:00hrs

Contact

Laboratory Services, (Standard Organisation of Nigeria),
No. 8, Surulere Industrial Road, Off Acme Road, Ogba, Ikeja. Lagos State. Nigeria.

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