POWER FOR ALL FACT SHEET
Decentralized renewable energy and SDGs in Nigeria

Nigeria is Africa’s largest potential off-grid market with 75 million of its population still living without electricity access, and 80% of those who have access still use alternative sources of energy due to frequent power outages. Evidence shows that Nigeria’s off-grid market has the capability to create sustainability and improve living conditions in the country. This fact sheet explores the latest data on Nigeria’s off-grid technology and decentralized renewable energy (DRE) market and its positive linkage with the achievement of UN Sustainable Development Goals (SDGs).

Nigeria’s DRE market is showing strong growth at 36% for off-grid solar products; ambitious plan for mini-grids underwent significant development.

» Nigeria’s off-grid market for mini-grids and solar home systems is estimated to yield $10 billion annually in revenue, and savings of $6 billion for Nigerian homes and businesses. 2
» Between 2015 and 2017, 1.7 million off-grid solar products were sold in the country with an annual growth averaging 36% between 2014 and 2016.
» Nigeria’s Rural Electrification Agency (REA) plans to deploy 10,000 mini-grids across the country and estimates that installing 100kWh each per mini-grid will only meet 30% of anticipated power demand in the country. 3

SDG3 -- Replacing kerosene with DRE brings health benefits.

» Kerosene poses health hazards. An estimated 30 percent of hospital burn cases are due to kerosene lamp explosions. 4 Indoor air pollution from kerosene affects 136 million Nigerians. 5
» DRE can provide opportunities for improved healthcare, particularly in rural regions: midwives in Nigeria find that solar lights and home phone charging contribute to better patient care. 6
» As part of the Solar Nigeria Program, DRE solutions have been deployed in 45 primary health centers. Positive impacts include improved night-time care, vaccination and medicine refrigeration, and more patients served. 7

SDG4 -- DRE contributes to inclusive and equitable education by unlocking study hours and improve safety.

» 65% of primary and secondary schools are without access to electricity, mostly in rural areas, which prevents their use of technology-based educational services. 8
» The Lagos Solar Project has provided DRE to 175 schools. Observable impacts include extended study hours, more computer usage, increased enrolment, and better school performance. 9
» The Safe School Initiative provided solar lighting to schools in Northeast Nigeria, a conflict affected area, to improve lighting services and security. 10

SDG5 -- DRE solutions help advance on gender equality by creating opportunities for women through entrepreneurship and savings from kerosene use.

» Women are in the majority among Nigeria’s poor and are the most affected by energy poverty.
» Training women entrepreneurs as distributors for DRE solutions presents opportunities
» to empower women at the same time brings profitability for DRE companies. 11
» The Rural Women Energy Security Initiative is using small-scale DRE projects to target rural energy-poor women with health-related issues from the use of kerosene, diesel and charcoal. 12

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By the Numbers:

65% RURAL SCHOOLS THAT CAN BENEFIT FROM DRE

61% MSMES IN OFF-GRID AND BAD-GRID AREAS THAT CAN BENEFIT FROM DRE

$6.4 MN POTENTIAL TONS OF CO2 AVOIDED FROM DRE TRANSITION

SDG8 -- By improving electricity access, local businesses thrive and bring employments.
  » There are 37 million micro, small and medium-sized enterprises (MSME) in Nigeria, accounting for 84% of jobs. 61% of these MSMEs locate in off-grid or bad grid areas.15
  » DRE can significantly reduce MSME’s operational cost and create induced jobs. Two mini-grid projects run by GVE Group serving 3,520 rural population have created 182 new jobs.16

SDG13 -- DRE fights climate change by replacing carbon-intensive energy sources.
  » A full transition to DRE can avoid 6.4 million tonnes of carbon dioxide emissions a year for the country – the equivalent of 1.6 million mid-size cars removed from roads.17
  » Replacing the use of kerosene lamps with lighting from DRE can reduce Nigeria’s carbon emissions by 20% by 2030.
  » The Great Green Wall program deployed solar pumps in 92 communities in Northern Nigeria and has increased irrigation and helped to combat desertification.18

Share the Message

» DRE contributes to SDG by improving health and education, advancing gender equality, bringing employment opportunities and reducing carbon emissions.
» Sound evidence and examples were found that DRE advances at least 6 SDGs in Nigeria.

Sources:
12. How Nigeria Plans to Protect Schoolgirls
15. New survey reveals 37m MSMEs in Nigeria
17. UNEP (2013) op. cit