### **POWER FOR ALL RESEARCH SUMMARY** Nigeria's Decentralized Renewable Energy Opportunity

# POWER ∄ ALL

## 80%

PERCENTAGE OF GRID-CONNECTED NIGERIANS STILL USING ALTERNATIVE SOURCES OF ELECTRICITY

# \$14 billion

ANNUAL HOUSEHOLD FUEL SPENDING IN NIGERIA

## \$10 billion

ANNUAL DRE MARKET REVENUES IN NIGERIA

#### Join the conversation:

powerforall.org twitter.com/power4all2025 facebook.com/pwr4all Recent research<sup>1</sup> by Power for All's on-the-ground country campaign finds that the Nigerian decentralized renewable energy (DRE) market is large and proven, but the capital required to finance this market remains to be unlocked.

#### Nigeria is Africa's largest potential off-grid market.

- » 75 million Nigerians (40.7% of the population) currently lack access to electricity<sup>2</sup> and are hugely dependent on inefficient energy sources such as kerosene, biomass, petrol and battery-powered torches.
- » 80% of the country's grid-connected population still use alternative sources of electricity generation, primarily petrol or diesel generators, spending US\$14 billion annually on fuel.
- » Nigeria's DRE market for mini-grids and solar home systems is estimated to yield US\$10 billion annually in revenue, and a savings of \$6 billion for Nigerian homes and businesses.<sup>4</sup>
- » 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 minigrids across the country<sup>6</sup> and estimates that installing 100kWh each per mini-grid will only meet 30% of anticipated power demand in the country?

### Unlocking both international and local sources of finance is critical for Nigeria's DRE market to achieve required scale.

- » Despite its commercial nature, Nigeria's DRE market is characterized by increasing philanthropic interests and many private enterprise players, but still very minimal investors.<sup>®</sup>
- » SEforALL finds that most Nigerian DRE enterprises are primarily ownerequity financed and source funds primarily through grants (for which there is increased competition), equity, debt, and crowd-funding.
- » Reasonably priced debt is difficult to obtain due to high collateral requirements and high interest rates, usually 25% to 35% from commercial banks, so most enterprises tend to prefer corporate equity to project debt finance.
- » Long term equity and debt finance is required for DRE enterprises to fund projects, expansion, capital needs, operational costs and consumer lease financing.<sup>10</sup> The SE4All Market Needs Assessment

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#### Nigeria's Decentralized Renewable Energy Opportunity

#### By the Numbers:

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REVENUES IN NIGERIA

suggests that DRE enterprises in high impact countries such as Nigeria delivering Tiers 1-3 electricity solutions will require 59% debt, 33% equity and 8% grant finance to scale and meet the 2030 energy access target.<sup>11</sup>

# Energizing the scale of finance needed by the sector will require an enabling environment - favorable policies, multi-stakeholder collaboration and government support.

- » The Rural Electrification Strategy and Implementation Plan (RESIP), the Mini-Grid Regulation, and Nigerian Renewable Energy and Energy Efficiency Policy (NREEEP) are key government policies guiding the country's off-grid market.
- » Donor organizations such as the UK's Department for International Development (DFID) Solar Nigeria Programme, the United States Agency for International Development (USAID) Power Africa Program, and the German Development Agency GIZ's Nigerian Energy Support Programme (NESP) are providing support for the sector through policy support, technical assistance, and funding pilot projects.
- » In February 2017, USAID, Power Africa, FHI360 and Power For All launched the Scaling Off-Grid Energy (SOGE) project in Nigeria, <sup>12,13</sup> collaborative DRE initiative to accelerate the growth of the sector. The project is driven through a multi-stakeholder taskforce comprising of government, donor organizations, development institutions, financial institutions, industry associations, and civil society.<sup>14</sup>

### Nigeria's DRE market is ripe for bold investments. Join Power for All to share the following message:

Nigeria's DRE market requires critical finance. This will involve a combination of innovative hybrid options for a market this size and to achieve growth and scale.

Patient capital is limited, leading to increased competition for the few grants and funds from development institutions currently a major part of financing in the sector.

The only way to accelerate access and end energy poverty faster is to catalyze finance, drawing in bigger and bolder investments into the sector.

Sources:

3. REA (2017) Nigeria MiniGrid Investment Brief. Pg. 3. 4. ibid. 5. Lighting Global (2018) Off-Grid Solar Market Trends Report 2018. Pg. 75.

<sup>1.</sup> Agbaegbu, C., Malo, I. (2018) Energizing Finance for Africa's Largest Renewable Energy Market. Power For All. 2. World Bank (2018) Access to Electricity (% of population) – Nigeria

<sup>6.</sup> The Guardian (2017) a \$9.2billion off-grid electrification opportunity lies in Nigeria 7. Op Cit. REA (2017). Pg. 3.

SE4ALL (2017)a Energizing Finance. Scaling and Refining Finance in Countries with Large Energy Access Gaps.
 ibid.
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