

Power Africa's Off-Grid Energy Access Focus – Beyond the Grid

Katrina Pielli, Senior Energy
Advisor; Lead – Beyond the Grid
*High-level Workshop on Energy
Access in West Africa*

March 28, 2017



Power Africa Goals

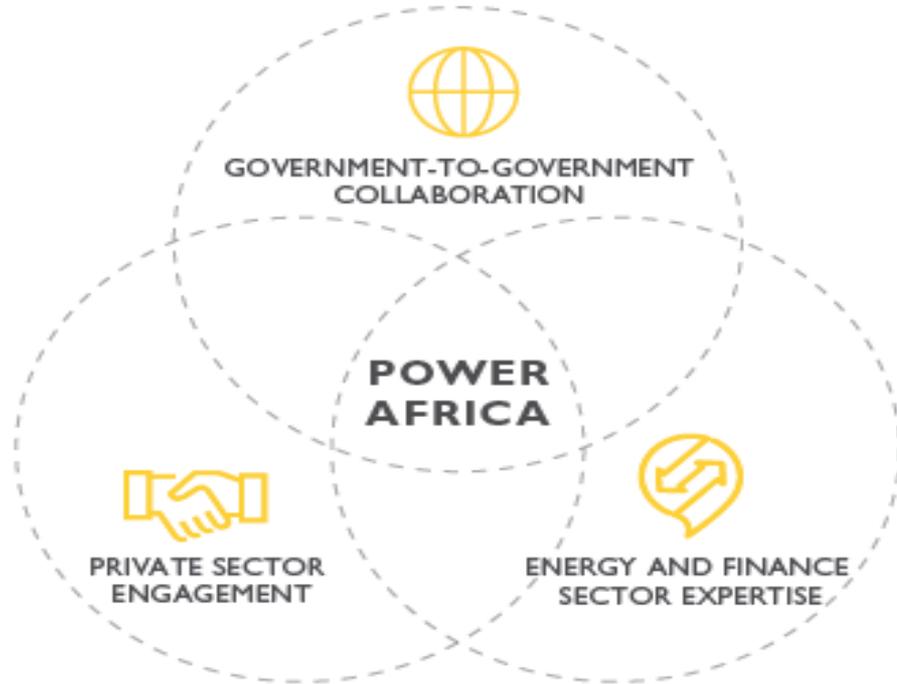


Double Access to Electricity in sub-Saharan Africa

- 30,000 MW of new, cleaner power generation capacity
- 60 million new household and business connections



Power Africa Model



Our partnerships provide the resources to help us achieve our collective goals to electrify the continent.

Power Africa's model focused on practical solutions:

- Deep knowledge of the power sector
- A private-sector-led engagement approach
- Experience working with governments, development partners and civil society to improve policies and governance

THE POWER AFRICA ROADMAP

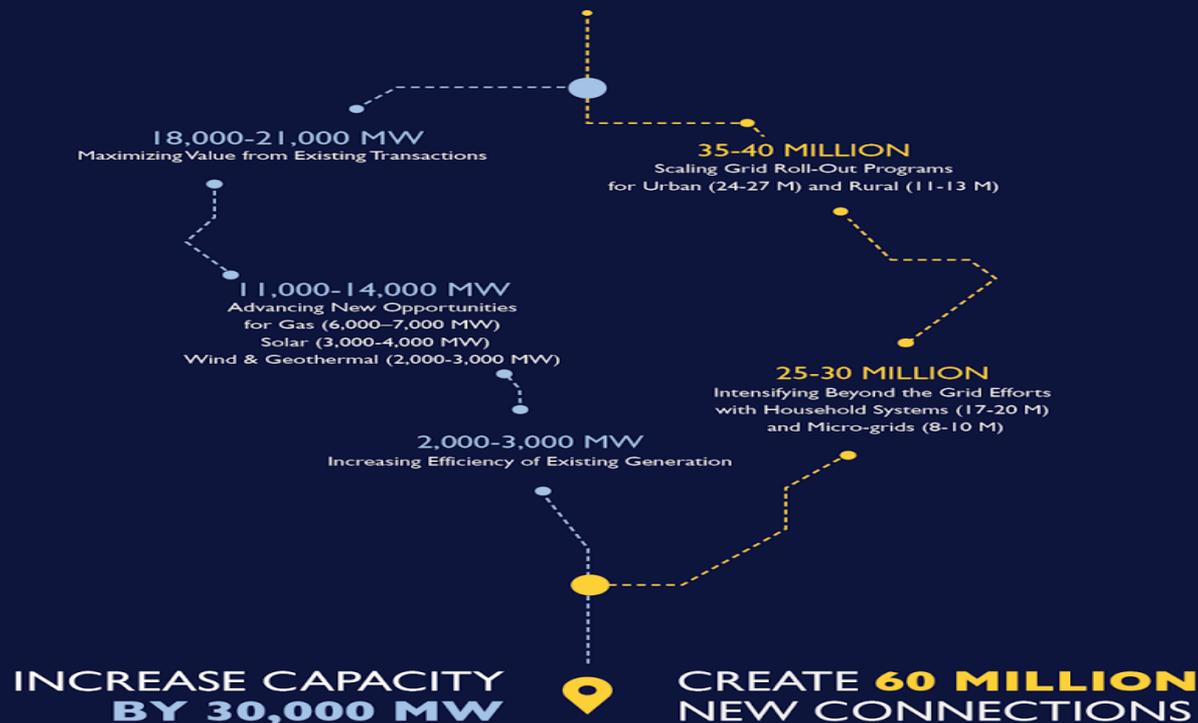


TOOLS & RESOURCES

Transaction Assistance • Finance • Policy / Regulatory Design & Reform • Capacity Building • Legal Assistance

PARTNERSHIPS

Working together to increase energy across the continent by supporting innovation, effective and suitable development.



Power Africa Beyond the Grid

- Beyond the Grid (BTG) launched in June 2014 at U.S.-Africa Energy Ministerial in Addis Ababa, Ethiopia.
- Over 60 investor and practitioner partners have committed to invest over \$1 billion into off-grid and small-scale solutions.
- Focus is to unlock investment and growth for off-grid and small-scale energy solutions on the African continent.
 - 25-30 million connections through BTG efforts by 2030

*“With close to **600 million people without access** to modern-day electricity, it is clear that **centralized grid access is not a comprehensive solution** for these countries in one of the world’s least urban continents. But through solutions including **off-grid and small scale energy projects, we can bring electricity to these rural areas.**”*

- U.S. Energy Secretary Ernest Moniz.

Power Africa Beyond the Grid

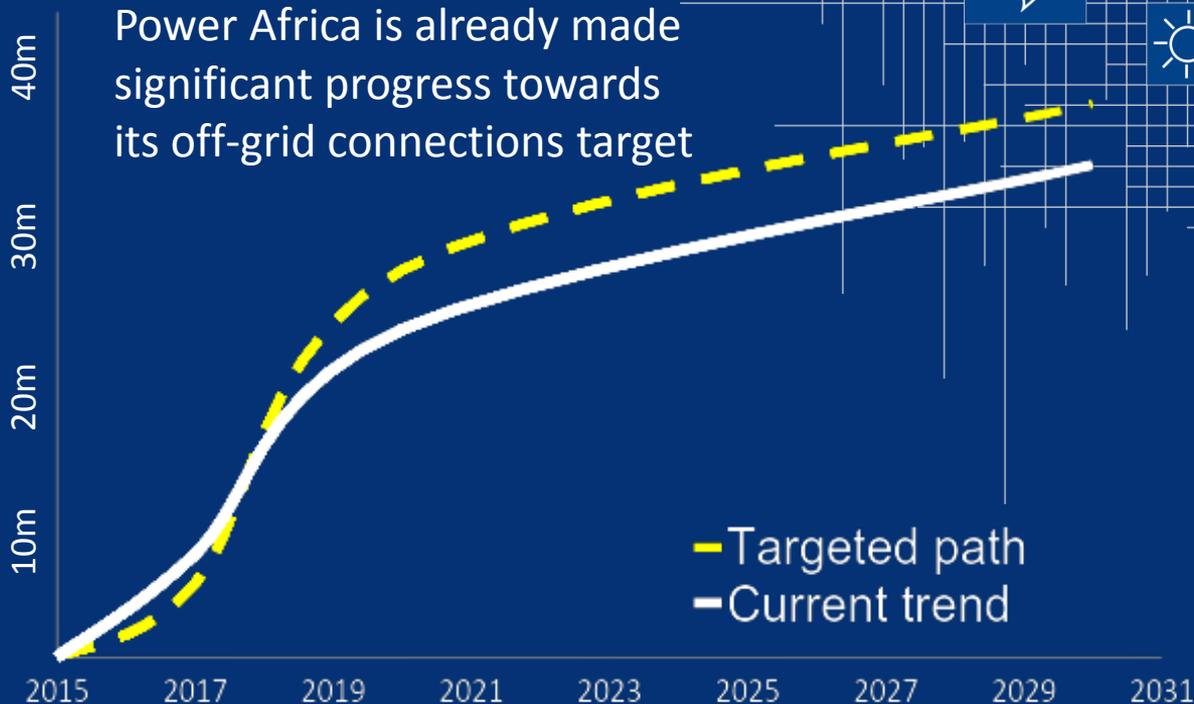
- Two strategic off-grid priorities:
 - Addressing recurring market constraints in the **household energy** market by *increasing access to financing and providing technical assistance*.
 - Goal: **17-20 million connections - solar home systems**
 - Striving to achieve scalable, cleaner **community-level solutions** that offer electricity access greater than the first tier of task lighting. Ensuring enabling environments are supportive through *regulatory and policy regimes* is critical to facilitate private sector success. Accelerating *business models and access to financing*.
 - Goal: **8-10 million connections - micro-grids**



Off-grid Connections

25-35
Million

New Off-grid
Connections
Target



Achieving Off-Grid Energy Access Goals

- Assisting Power Africa partners with achieving their energy access goals
- Utilizing Power Africa partnerships with donors and strategic partners
- Utilizing U.S. Agency & Partner tools and resources
- Promoting universal access: an integrated approach to energy planning – focus on off-grid and on-grid together
- Identifying and leveraging related issues (i.e. energy efficiency, efficient off-grid appliances, etc.)

Off-Grid Energy Access Field Advisors

- Beyond the Grid has over 12 advisors supporting off-grid energy access, including micro-grids, across sub-Saharan Africa:
 - West Africa Regional
 - Senegal
 - Kenya
 - East Africa Regional
 - Tanzania
 - Nigeria (multiple)
 - Uganda
 - Rwanda
 - Southern Africa Regional
 - Pan-African (multiple)
- Focus is to provide transaction and technical assistance to private companies and governments to accelerate new connections.

Off-Grid Technical Assistance:

Examples for private-sector company assistance

- Make connections to private investors and financiers.
- Assist with navigating the regulatory processes for company registration and distribution licensing for micro-grid companies.
- Assist with refining and strengthening marketing and retail strategies, including developing new partnerships with distribution and retail partners.
- Assist with review for grant and commercial finance applications.
- Coordinate activities with private sector and other donors to promote regulatory changes that would encourage investment by companies in the country.
- Supporting off grid companies in their efforts to improve and expand their operations through business and network distribution advice.
- Assist with community/site assessment, power system and techno-economic studies, project-level modeling, renewable energy integration.
- Assist with project bundling through standardization.
- Provide analysis of project data to identify operational efficiencies.

Off-Grid Technical Assistance

Examples for government assistance

- Assist with review of existing policies and offer recommendations to provide incentives for off grid rural electrification
- Provide best practices from other African and global countries on key energy access policies
- Provide technical assistance to governments on key technical issues (e.g., micro-grid interconnection)
- Support the development of technical standards to facilitate micro-grid and SHS deployment
- Provide capacity building efforts to governments to help them understand business models for micro grids and SHS
- Support governments develop and implement their rural electrification strategies

Interagency & Strategic Partnerships

- Interagency & Strategic Partnerships are vital to Power Africa's off-grid success. U.S. Department of Energy – Global Lighting & Energy Access Partnership (Global LEAP)
 - **Quality Assurance Framework for Mini-grids:** Technical validation with private sector companies, assistance to governments. Partnership with NREL and U.S. DOE.
 - Expanding **the Global LEAP Results Based Financing (RBF)** procurement incentive in Bangladesh to East Africa in 2017 with DFID and Power Africa support.
 - **2016-17 Global LEAP Awards Off-Grid Refrigerator Competition:** To identify the super-efficient, high-quality off-grid refrigerators. Partnership with USAID, DFID and Power Africa. Accepting nominations now -- up to \$600,000 of innovation cash prizes for products that demonstrate market-leading advancement in key performance criteria.
- U.S. Trade & Development Agency
 - Grant investments in project preparation activities designed to generate renewable and gas-fired power, modernize electric grids and increase energy efficiency. USTDA programs are available to help African project sponsors prepare bankable clean energy projects.
- USAID: Local bank technical assistance (training and capacity building) in West Africa & with select other banks
- World Bank and AfDB cooperation to advance universal access
- New ECREEE partnership to advance micro-grids coming soon!

Power Africa Toolbox

- Power Africa combines the **resources and global know-how** of our **partners** to provide resources and mechanisms that **drive deals** between the private sector and African governments.
- Five categories of Power Africa tools:
 - Transaction Assistance:
 - Finance
 - Enabling Environment
 - Capacity Building
 - Legal Assistance
- New Project Preparation Facilities Toolbox
 - 13 early-stage PPFs operating in SSA

<https://www.usaid.gov/powerafrica/toolbox>

Tools include:

- Small grants;
- Technical assistance;
- Risk mitigation insurance;
- Medium and long-term direct loans for U.S. investments in Africa;
- Feasibility studies and project preparation assistance;
- Advocacy for legal, regulatory and institutional reforms;
- Working capital loans for U.S. exporters;
- Loans to African purchasers of U.S. goods and services;
- Reverse trade missions and trainings.

For More Information

<https://www.usaid.gov/powerafrica>

Katrina Pielli - kpielli@usaid.gov