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## POWER AFRICA OFF-GRID PROJECT

Power Africa aims to accelerate off-grid electrification across sub-Saharan Africa through targeted, context-specific interventions with private-sector companies, governments, investors, and donors. The Power Africa Off-grid Project, funded by USAID, aims to improve off-grid energy policies and regulations; catalyze \$500 million in new investment capital; and facilitate six million new off-grid electricity connections in sub-Saharan Africa by 2022.

## PRODUCTIVE USES OF ENERGY



Productive uses of energy (PUE) refer to powered devices that can be used in commerce, industry, and agriculture. In the latter sector, PUE can be used as capital to grow, process, and store produce. In working to increase the supply and uptake of off-grid PUE, Power Africa prioritizes renewable and low-carbon technologies.

Barriers to PUE adoption in sub-Saharan Africa include:

- Limited awareness of PUE technologies, particularly among smallholder farmers.
- Weak links between farmers and PUE technology suppliers.
- Limited access to PUE technology.
- High up-front cost of PUE equipment.
- Lack of after-sales service.
- Lack of flexible financing that meets customers' needs.
- Distribution difficulties due to poor transport networks and limited communication infrastructure.

### EXAMPLES OF OFF-GRID PUE TECHNOLOGIES

Agri-processors (e.g., mills)

Cooling solutions  
(e.g., refrigerators, freezers, milk chillers, and walk-in cold storage)

Energy production and conversion  
(e.g., battery charging, phone charging)

Food dryers

Mini-grids for PUE  
(e.g., manufacturing, sewing, welding)

Communication  
(e.g., Internet, telephones)

Egg incubators

Fishing lights

Sprayers  
(for water, fertilizer, and pesticides)

Water pumps  
(water purification, pumping for irrigation, pumping for drinking water)

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## POWER AFRICA PUE RESOURCES

### PUE catalogs

Resources containing information on PUE technologies with a focus on agriculture. This information includes products' technical specifications and gives an overview of manufacturers, distributors, distribution channels, business models, and payment mechanisms.

Catalogs for ten countries available [online](#).

### PUE market assessments

Resources providing information on market opportunities and on stakeholders promoting PUE.

PUE assessment for Liberia available [online](#).

## RESOURCE COLLECTION

# OFF-GRID PRODUCTIVE USE OF ENERGY CATALOGS FOR 10 COUNTRIES



PUE product information



Pay-as-you-go integration capabilities



Manufacturer, distributor, and supplier channels

## POWER AFRICA OFF-GRID PROJECT PUE SERVICES

**Business model analysis:** A service supporting companies by analyzing business models relevant to their products and by assisting market-entry.

**Access to finance (debt, equity, or grant opportunities):** Assisting companies to raise capital, review grant applications, and prepare submissions.

**Value chain analysis:** Providing analyses of agricultural value chains to identify opportunities for off-grid solutions to boost productivity.

**Business and sales performance:** Supporting companies to reach new markets, increase sales, and refine their business models to streamline processes and operate more efficiently.

**Partnership tools:** Helping manufacturers and distributors to partner in Power Africa's focus-countries.

**Market information for entering specific markets:** Supplying market intelligence for companies interested in expanding to new countries.

**Product portfolio expansion and piloting of PUE products:** Supporting companies to introduce new product lines to their service offerings.

Photo Credit: Julius C. Aniekpor

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