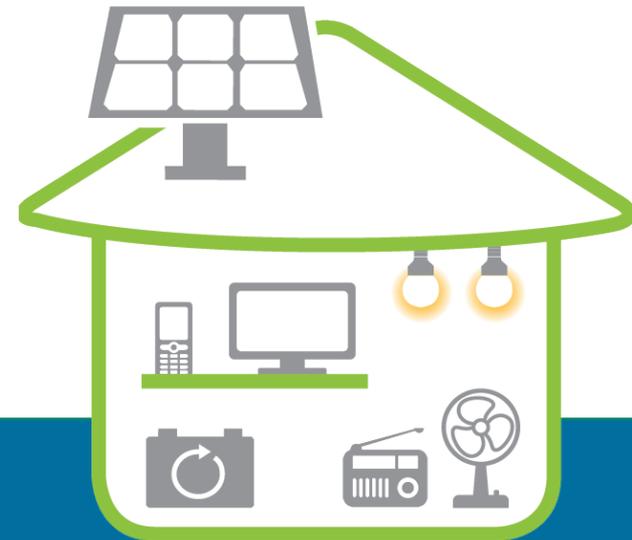


# Efficiency for Access:

Coupling Efficient Appliances with Off-Grid & Mini-Grid Solutions to Accelerate Universal Energy Access

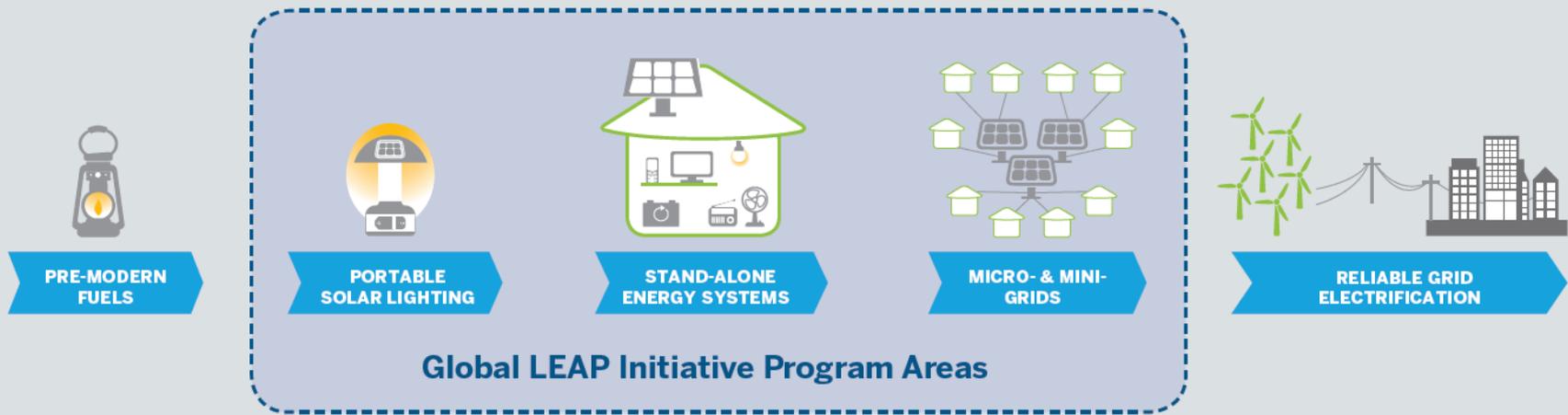
Rose M. Mutiso

U.S. Department of Energy



# About Global LEAP

Global LEAP works by catalyzing markets for clean energy access products and services throughout the developing world.



## Core Global LEAP efforts:

- Supporting **quality assurance frameworks** for off-grid energy products and services
- Enabling the uptake of **super-efficient off-grid technologies**
- Facilitating **programmatic, policy, and research partnerships** among energy access stakeholders

# Off-Grid/Mini-Grid Consumer Preferences Show Demand for Appliances

## 2015 Global LEAP Consumer Demand Survey Results



**1. LED Lighting Appliances**



**2. Mobile Charging Banks**



**3. Televisions**



**4. Radios**



**5. Refrigeration**

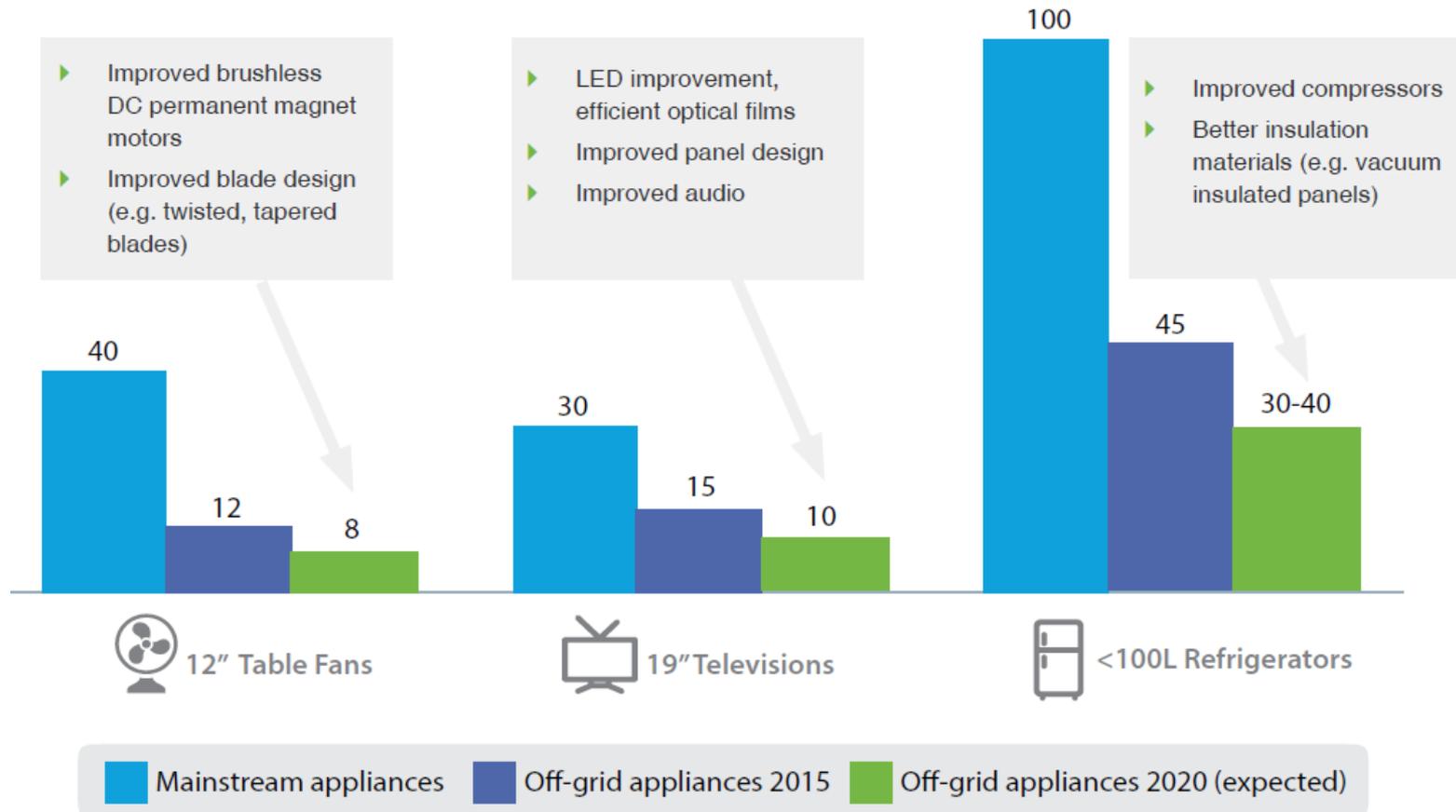


**6. Fans**

*n = 239 energy access practitioners*

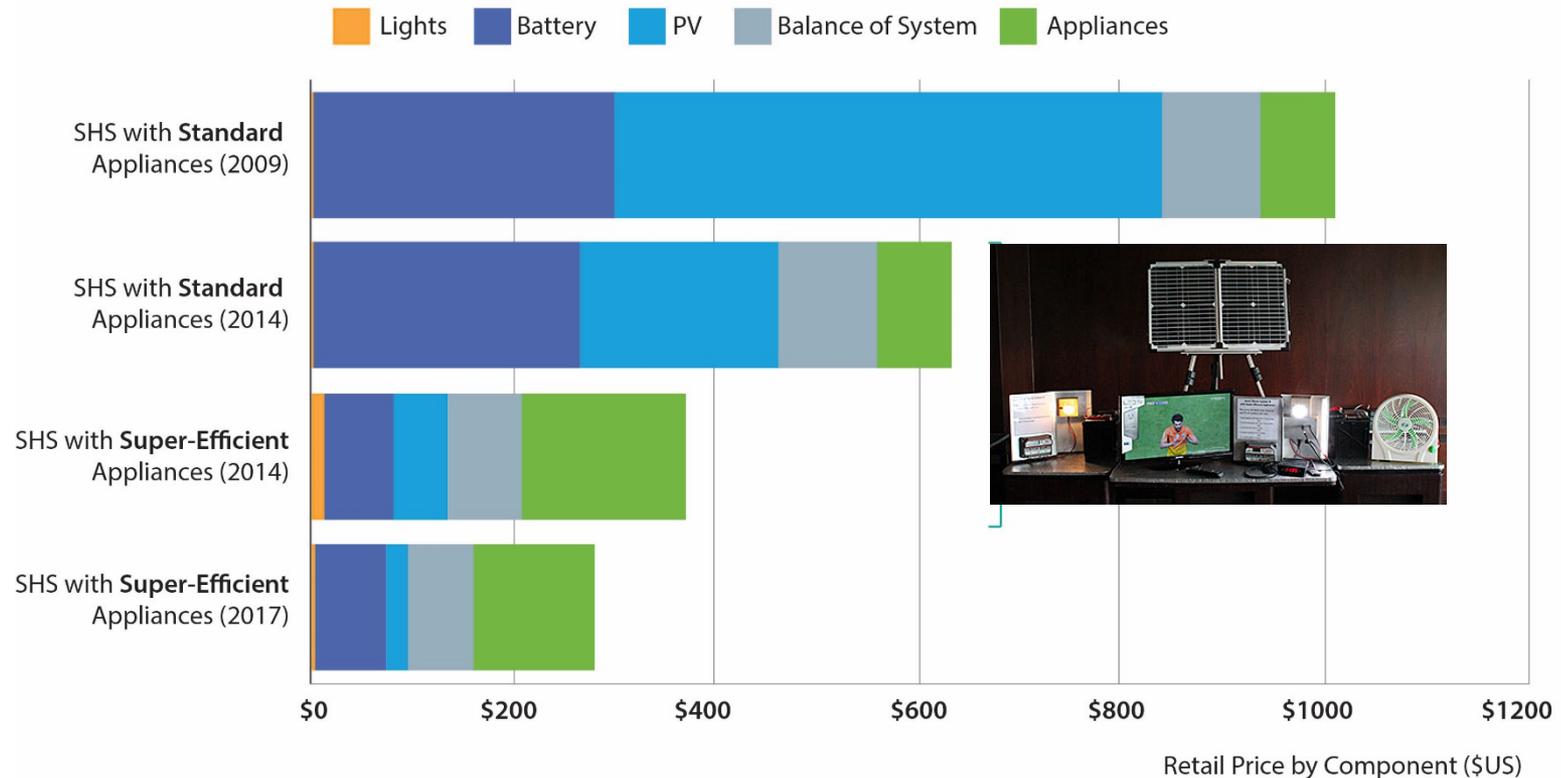
# Improvements in Energy Efficiency Increase Appliance Viability in Key Product Categories

## Estimated power rating (W) of off-grid appliances, 2015 and 2020



# Super-Efficient Technologies Reduce Costs of Off-Grid Energy Services

## SHS Purchase Price Based on Appliance Type



\*Systems provide energy for 4 lights, a 19" color TV, a radio, and mobile phone charging

\* Appliance use assumption: lights = 4hrs/day, TV = 3hrs/day, radio = 6hrs/day, mobile phone = 1 charge per day

Source: "A Home Energy System in just 25 Watts: Super-Efficient Appliances Can Enable Expanded Energy Access Using Off-Grid Solar Power Systems" (1.usa.gov/1K6yfn)

## Core Elements for Successful Market Transformation



- **Global LEAP technical reports and market research**
- **Global LEAP Off-Grid Appliance Test Methods**
- **Global LEAP Awards for Outstanding Off-Grid Appliances**
- **Global LEAP+RBF Procurement Incentives Program**
- **Global LEAP Off-Grid Appliance Data Platform**
- **The Efficiency for Access Coalition**



The **Global LEAP Awards** identify and promote world's best off-grid appliances



2013-2014  
Global LEAP Awards



2015-16  
Global LEAP Awards



2016-17  
Global LEAP Awards



Select participants include:



**Global LEAP Off-Grid Refrigeration Competition and Innovation Prize Now Accepting Nominations!**

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