

Appliances that Drive Economic Growth

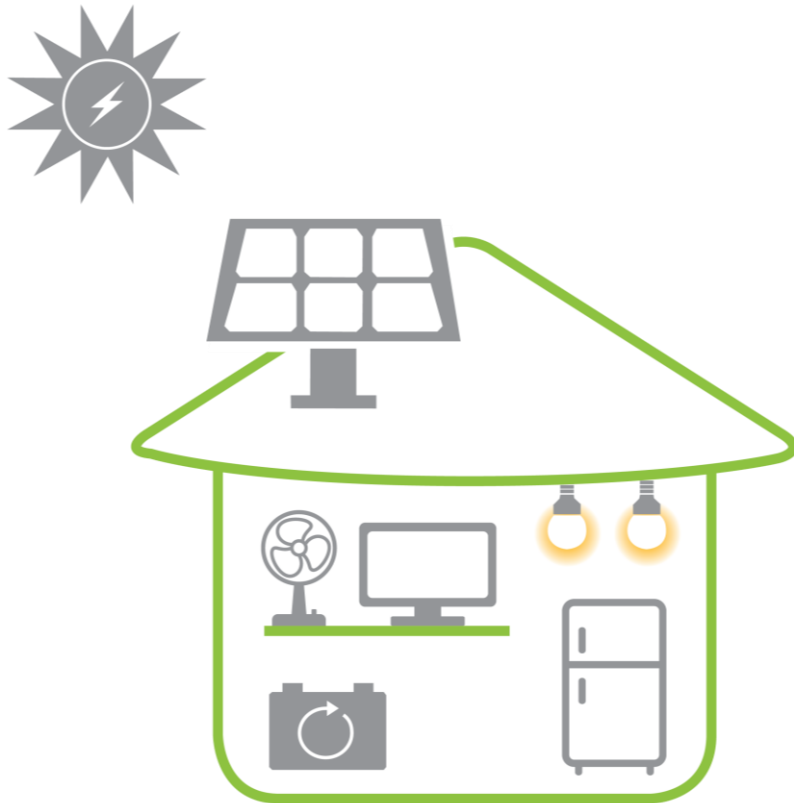
A presentation to the Global Off-grid Solar Forum

Stephen Pantano

January 2018

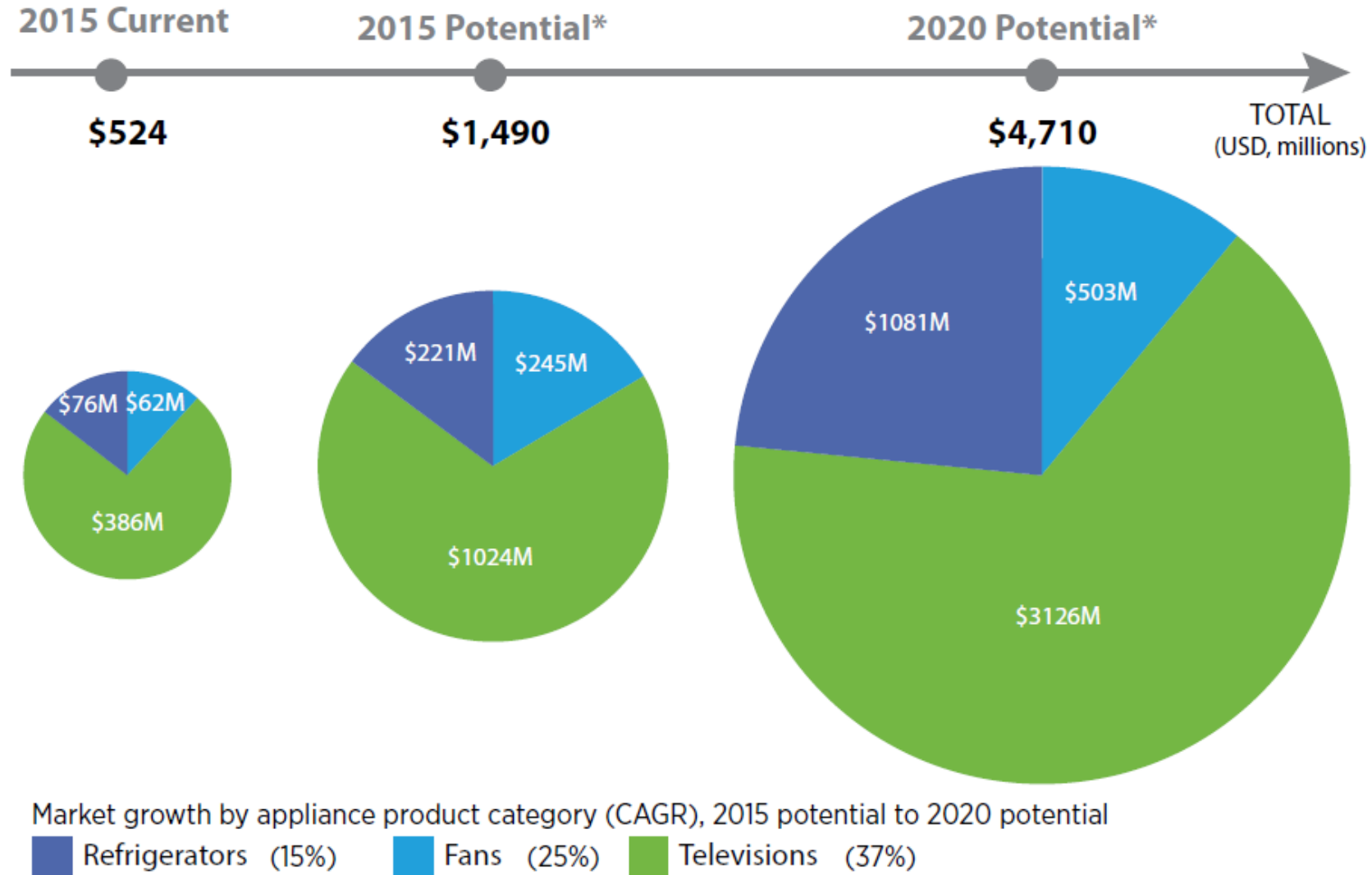


Energy services are evolving...

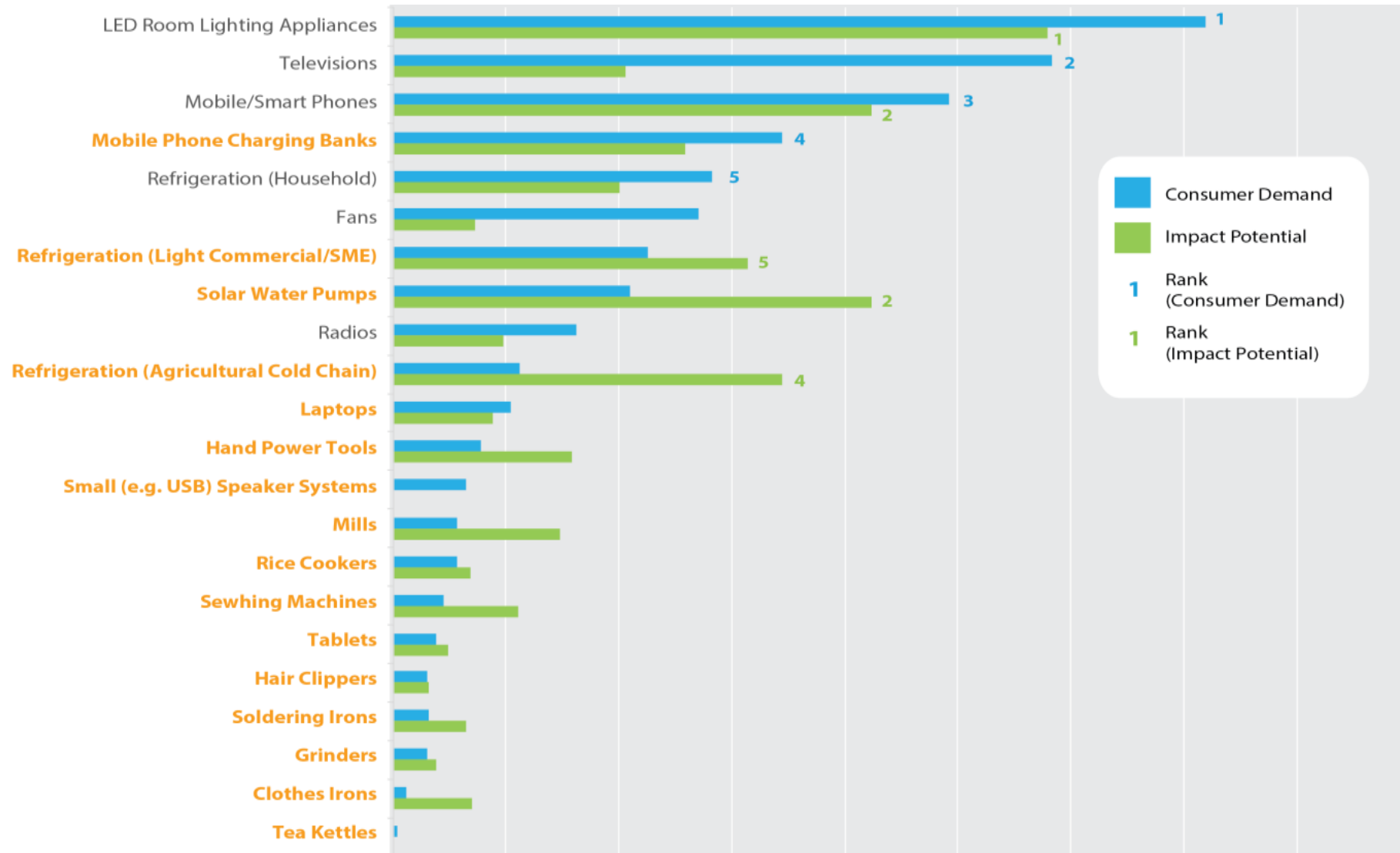


- Appliances turn electrons into energy service
- Consumers moving beyond basic needs to higher tiers
- Growing demand for refrigeration, cooling, entertainment, and income-generating products
- Suppliers and technology rising to meet the demand
- More can always be done to improve efficiency, scale markets, and reduce costs!

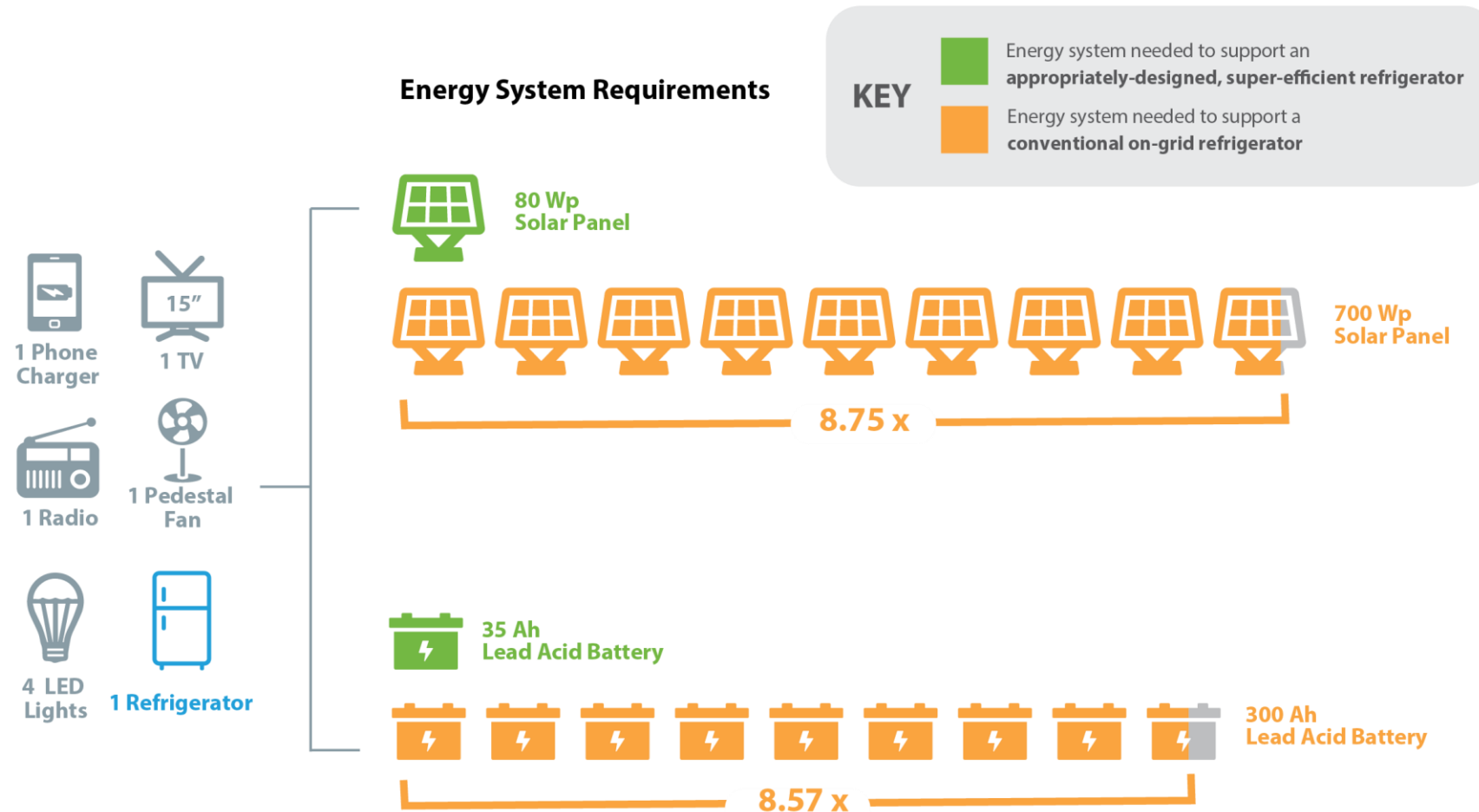
... and demand for appliances is growing



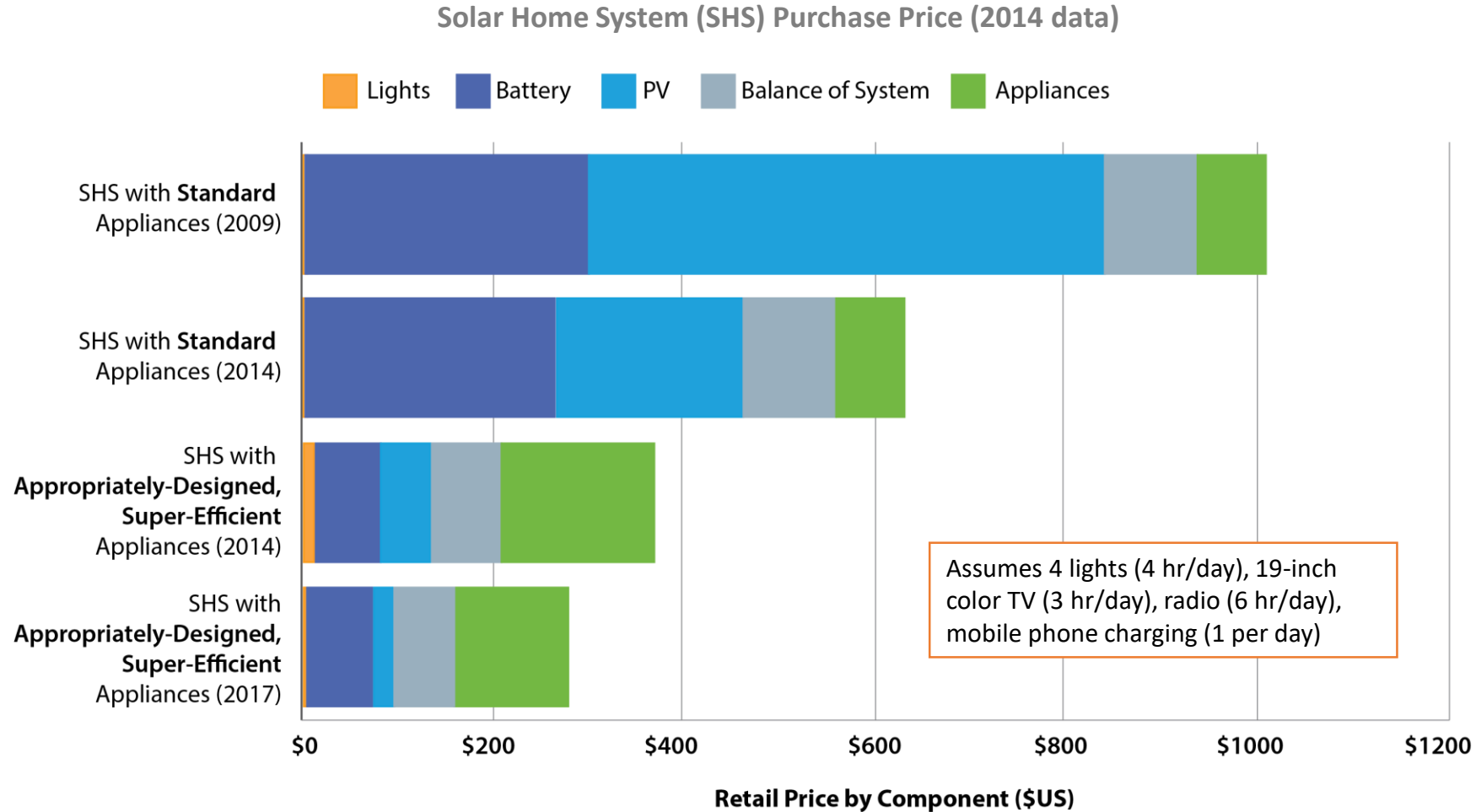
Which appliances matter most?



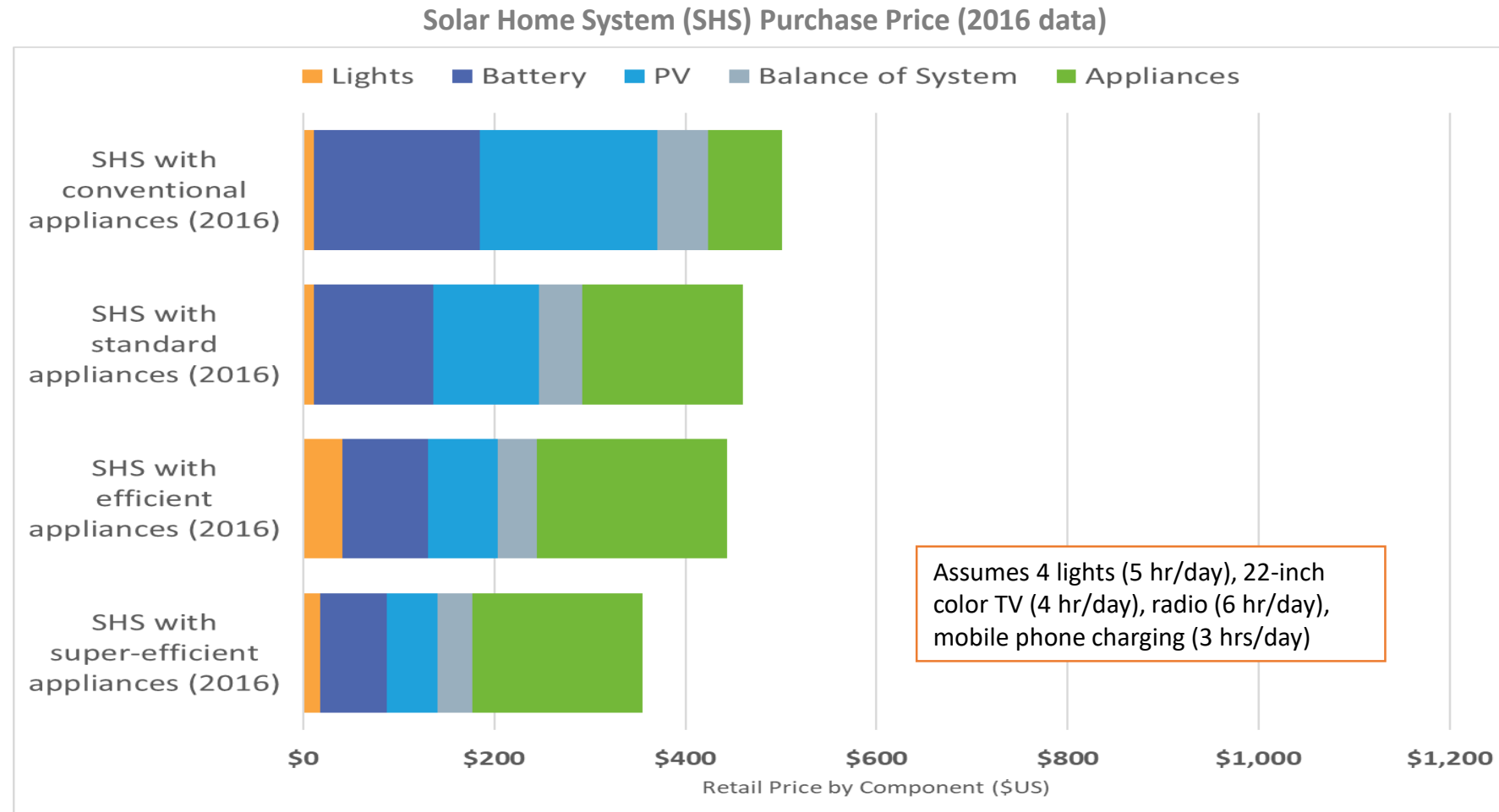
Efficient appliances drive consumer value...



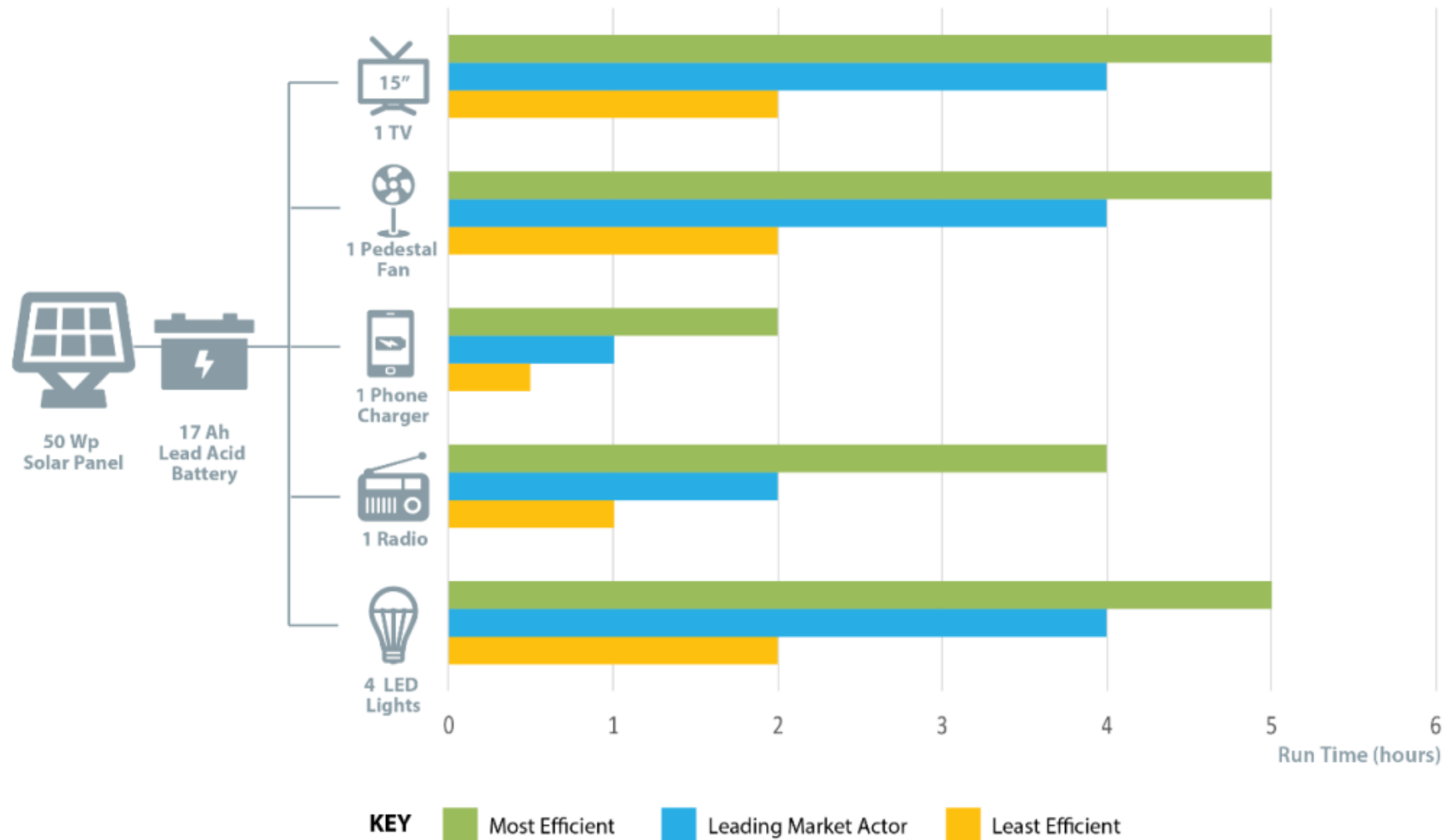
... by reducing overall energy access costs



Efficiency baselines are improving...



... but there's room for innovation (+ new products)!



What can be done?



Improve Market Intelligence



Support Research & Development



Strengthen Supply Chains



Facilitate Effective Policy

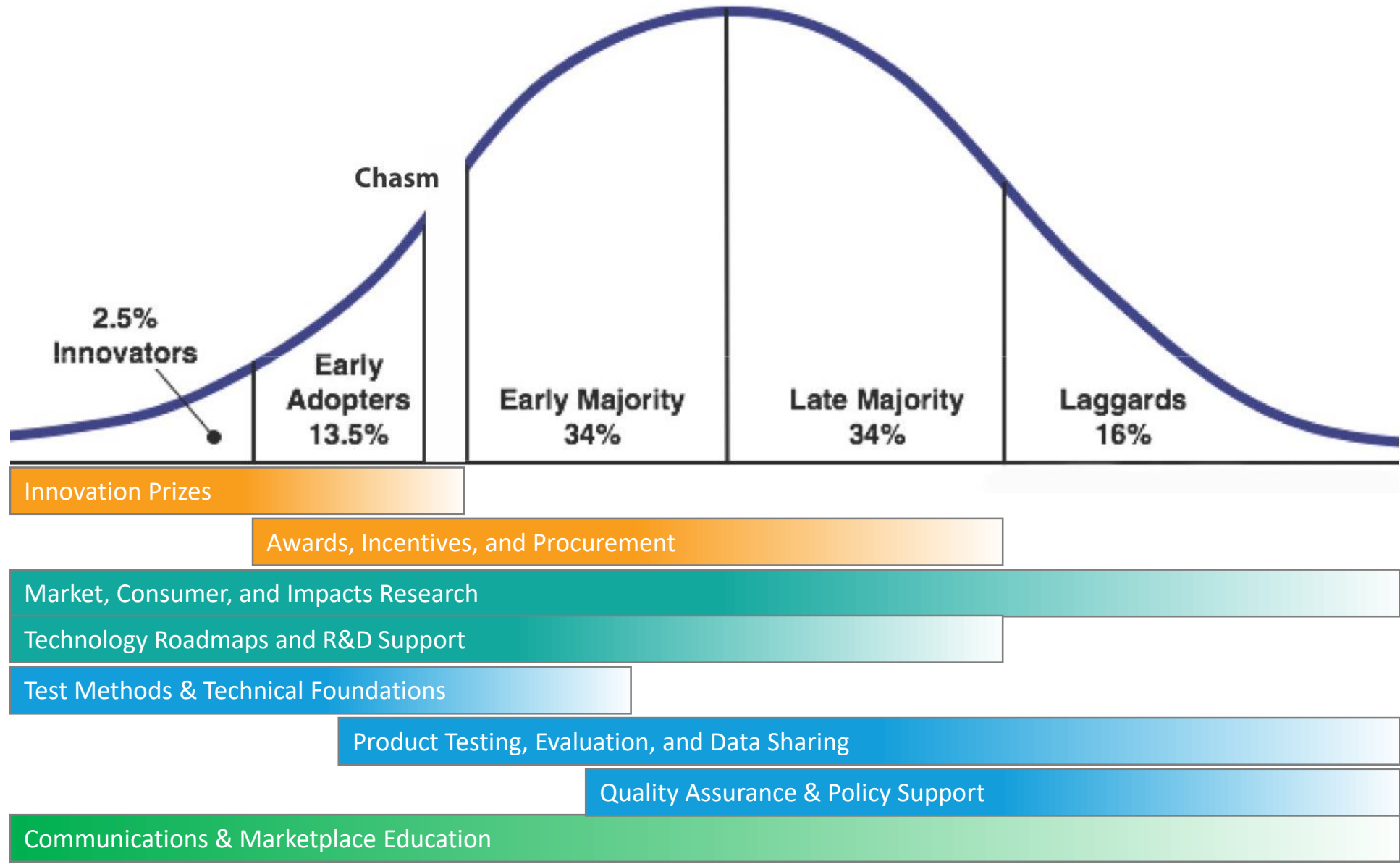


Coordinate Finance & Investment

Efficiency for Access Coalition



Actions follow technology & market maturity



Low Energy Inclusive Appliances Programme



Scale Deployment of Near-to-Market Products

Targets include refrigerators, solar water pumps, televisions and fans.



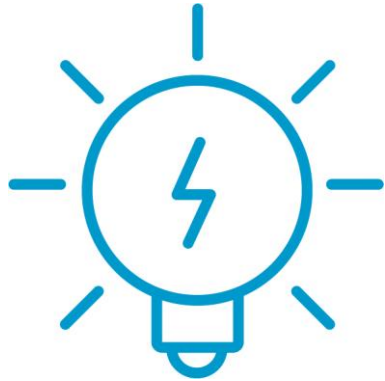
Stimulate Innovation & Knowledge for Horizon Technology

Targets include brushless DC motors, advanced electric cooking, connectivity and compatibility/ interoperability



Develop Market Intelligence & Coordinate Partnerships

Address gaps in market data and improve market function through partnership coordination and knowledge-sharing



- Technology Working Groups will develop R&D Roadmaps for important products and enabling technologies
- Goal is to focus R&D to accelerate innovation
- Launching (now!) for refrigeration, solar water pumps, and compatibility / interoperability. We need your help and expertise!
- Roadmaps will inform sponsored R&D grants, partnerships, and cooperation

LEIA research and knowledge sharing

- Market research, to identify trends and opportunities
- Consumer research, to understand use cases, preferences, and other factors important to R&D
- Impacts research, to define the economic, health, environmental benefits from improved appliances
- Research will inform – and be informed by – R&D roadmaps
- Information and insights shared with financiers, purchasers, policymakers, consumers, and others



Off-grid Cold Chain Challenge



CoolBot - India



Cold Hubs - Nigeria

- Off-grid cold storage containers have the potential to:
 - prevent food spoilage
 - raise incomes and increase food security
- The OGCCC is intended to bridge technology gaps and reward promising business models
- First round of awards will launch in March 2018

Global LEAP Awards Competitions



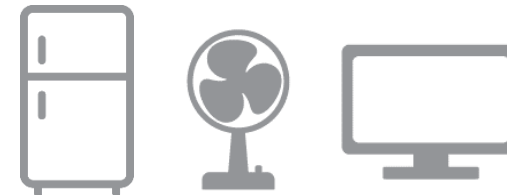
2013-14 (33 nominations)



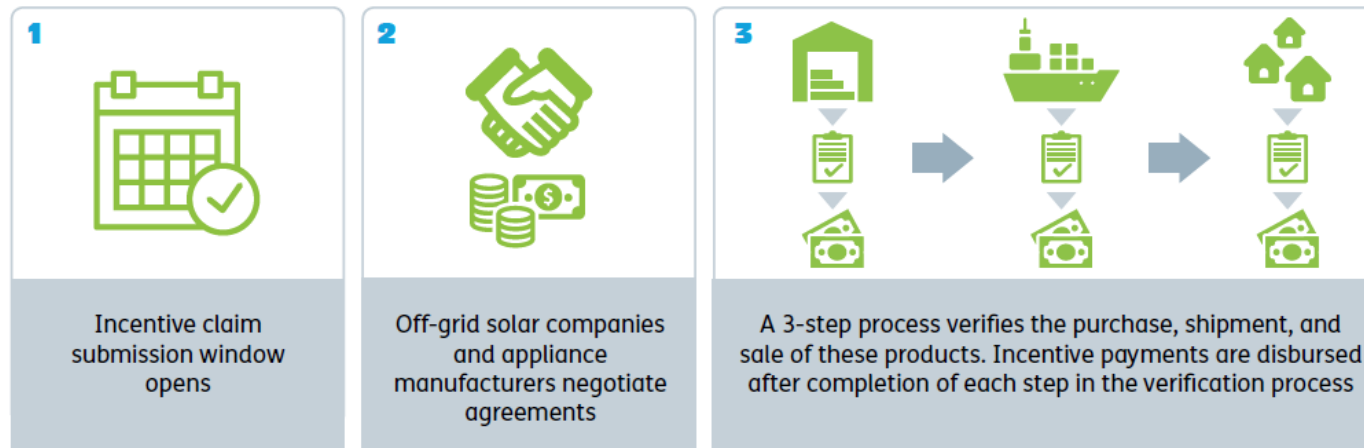
2015-16 (53 nominations)



2016-17 (128 nominations)



Global LEAP+RBF Incentives



2016

5 companies
12,000 televisions
Bangladesh

2017

27 companies
60,405 televisions + **225,825** fans
Bangladesh, Kenya, Tanzania, Rwanda, Uganda

Global LEAP Off-Grid Appliance Data Platform



Product Sampling

Sample off-grid appliances from retail markets, distributors and manufacturers



Product Testing

Test products according to international best practice, using new Global LEAP test methods



Data Cataloguing

Organize product performance, quality and market data in interactive, user-friendly online platform



Data Sharing

Share data with policymakers, investors, DESCOs, and manufacturers to inform off-grid appliance design, business decisions, and policy

Lighting Global Quality Assurance



Promote and support good policy



Drive uptake of quality products



Develop market & product intelligence



Develop standards & administer certifications

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