



Global LEAP AWARDS

LESSONS LEARNED FROM FIELD TESTING OF OFF-GRID REFRIGERATORS

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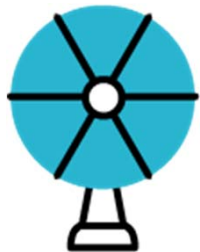


GLOBAL LEAP + RBF PROGRAM OVERVIEW

1. Identify Best-In-Class Off-Grid Appliance Products



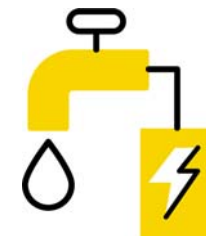
- Identify and promote leaders in early-stage product markets & encourage new entrants
- Develop technical foundation for long-term market growth (e.g., test methods)



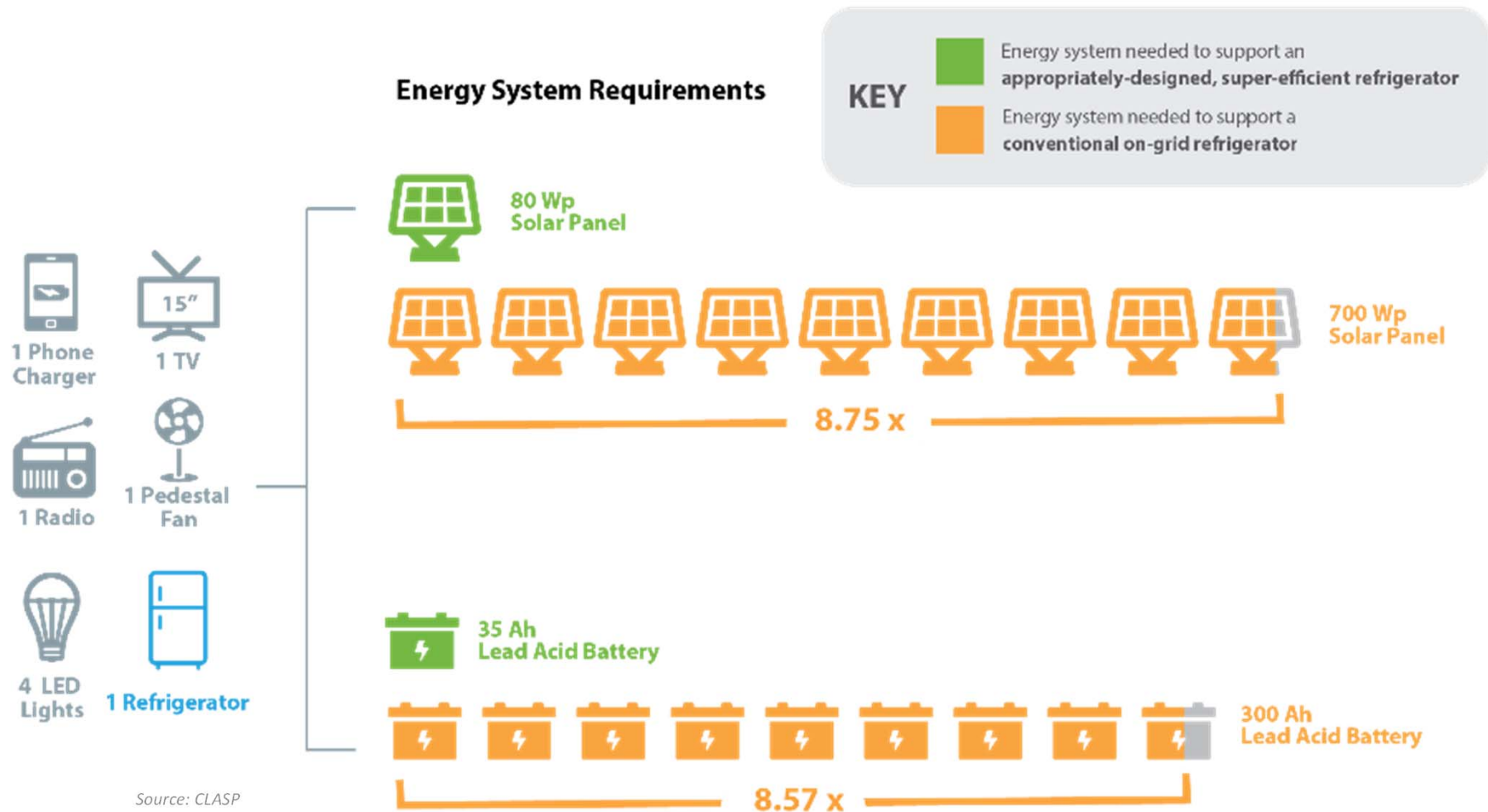
2. Bring Those Products To Market At Scale



- Create clearer path to market for Global LEAP Awards Winners and Finalists
- Reduce financial risks associated with large-scale appliance procurement



Efficiency maximizes energy service delivery

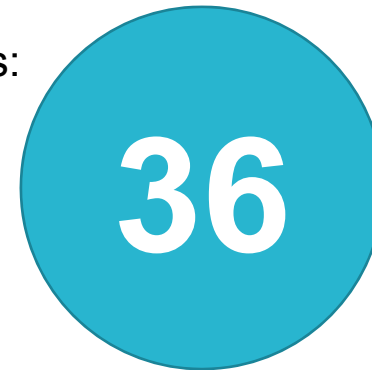


Off-Grid Refrigerator Field Testing

Country: **Uganda**



Entrepreneurs:



1. Technical Data via RMS

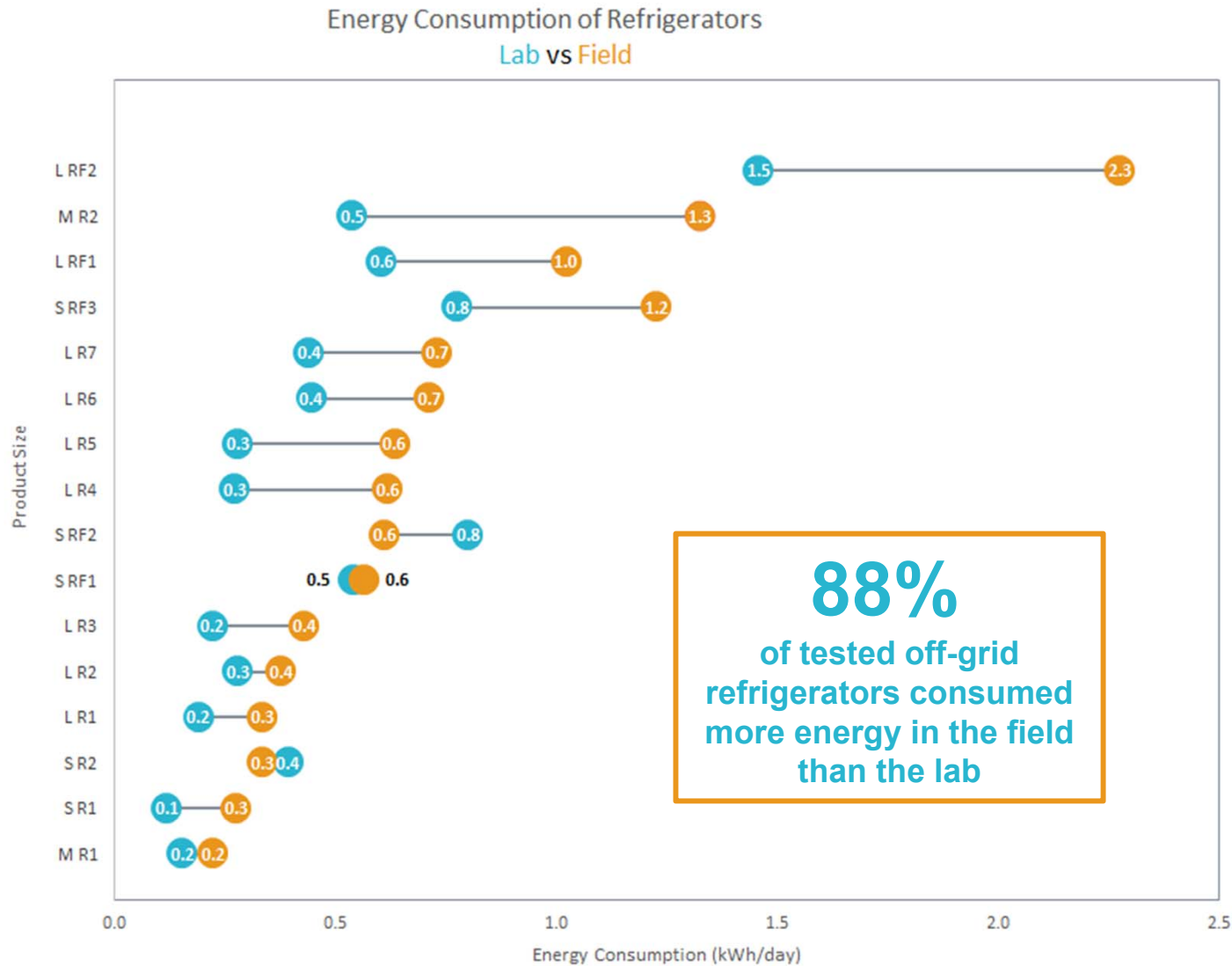


- Instantaneous power consumption
- Accumulated energy consumption
- Daily power available to the product from the solar home system/battery

2. Qualitative Feedback via bi-weekly in-person surveys

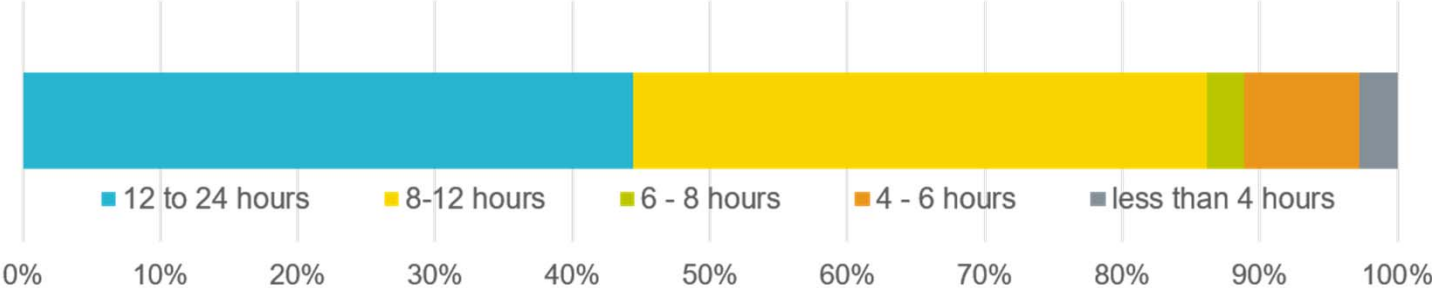


Inconsistent product performance risks exploitation of vulnerable consumers

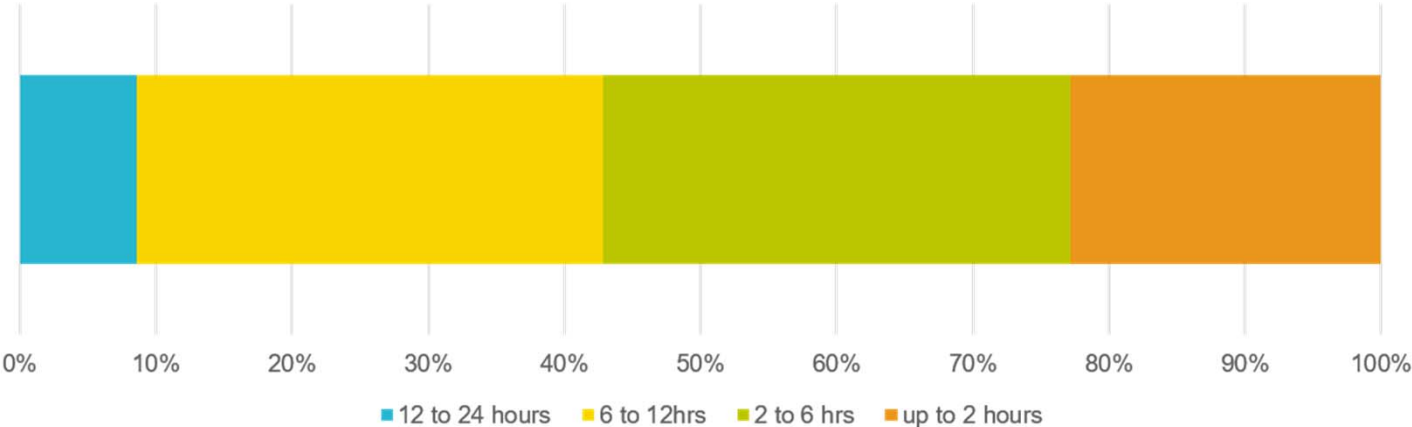


Inconsistent product performance compromises service delivery

How many hours do you expect the fridge/freezer to operate per week?



How many hours of fridge/freezer downtime can you tolerate per week?



Ease of Installation, Use, and Serviceability



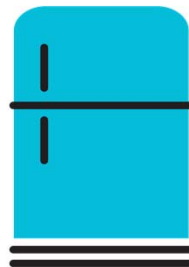
User Characteristics

- ▶ Low levels of comfort with appliance technology
- ▶ Low English literacy levels
- ▶ Live in remote areas



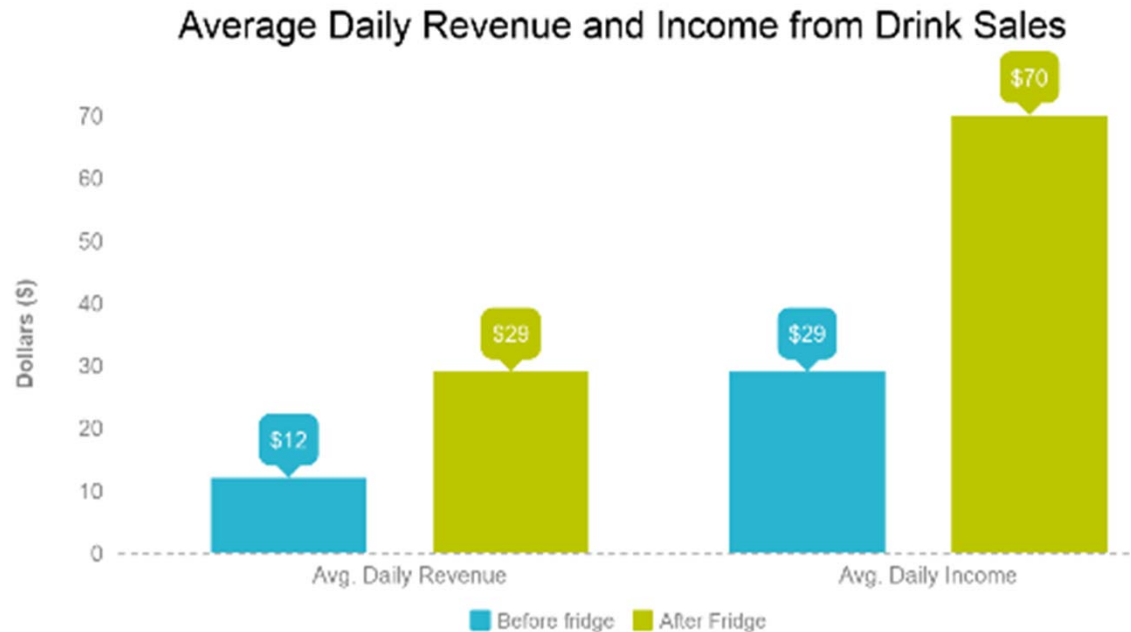
Design Characteristics

- ▶ Plug-and-play
- ▶ Easy-to-follow instructions
- ▶ Built in appliance protective mechanisms



How do refrigerators impact quality of life?

Average daily revenue from drinks increased from \$12 per day to \$29 per day, while average total daily income increased from \$29 to \$70.




50%

Of entrepreneurs reported expending into a new business line, with fruit juice being the most common new product sold

Customers are coming in great numbers, and we make sales. The fridges have really brought change.

Shabani Kalire
Mbale, Uganda





Getting this fridge has helped because if a child asks me to buy them a book, I can take money from what the fridge has earned us. The money is there, and I use it.

Proscovia Namugga
Jinja, Uganda