

How to increase access to Finance (Debt and Equity), reduce subsidies & accelerate scale for Mini-grids

Finance comes automatically to businesses that are viable
with good execution to mitigate risks

Mini-grids access to financing issue is more of a business model and execution issue

How can Mini-grids be a viable business? - Comparison with SHS

Viable

SHS

- \$10-35 / W incl. wiring & lights or TV
- \$200-\$500 per customer for rationed kwh delivery

Mini-grid

- \$4-6/W incl. distribution & connection
- \$ 300-450 per customer for a much higher service level

Then why are not mini-grids viable?

1. Customer Willingness to pay: SHS do not reveal per kwh cost so customers pay 20-50 times more than they are willing to pay for electricity tariff

SHS is not selling electricity but a consumer appliance that offers immediate savings

Business model innovation: Structure a product offering beyond electricity

2. High Fixed operating costs: Even a \$1000 per month operating costs means >5000 kwh demand required to start making some operating margin

Technical solution: Low maintenance systems with remote trouble shooting

Business solution: Find ways to share operating costs with other businesses / sites

What is a well executed Mini-grid?: Comparison with SHS

SHS

Mini-grid

Execution Complexity

- Standardized customer sale
 - Low project or execution risks
- Each mini-grid is a 6- 18 month project with permits, regulations, land acquisition etc.
 - As complicated as a MW scale project but with lower resources and budget

Risk Mitigation

- Cut off access and repossess systems on default
 - Standard customer finance
- Stranded immovable infrastructure
 - Outcomes unclear when main grid arrives

3. Risks and issues are not possible for a local developer to address

Policy innovation: local enabling regulation as important as subsidies

Division of labor: Global design and project delivery. with local execution