

## Part 2: Lighting Myanmar

IFC will work with the private sector to build the commercial market for off-grid solar in Myanmar.



# Market Opportunities | Pico PV

- Cash sales through existing FMCG distribution channels
- Sales of lanterns + charging by large corporates (i.e., telecoms)
- Sales through MFI as channel partner
- Consignment model of credit to distributors/retailers
- Village-agent network approach
- Projects market – e.g., humanitarian and disaster relief organizations

# Market Opportunities | SHS

- Cash sales by large distributors of FMCG, pharmaceuticals and agricultural supplies, etc. (~ 30% of HH per village could afford)
- MFI finance with distribution via loans agent network
- Energy-as-a-service offering; models might involve:
  - OEM for private-label PAYG devices, large corporate implementer (i.e., telecom firm, dish-network provider or consumer electronics company)
  - International manufacturer of branded PAYG devices, local partner(s) handling distribution + collection + after sales
  - Complementary offering implemented by large corporate (i.e., telecoms, dish-network provider, etc.)
  - Vertically integrated approach (i.e., Off-Grid Electric)
- Projects market – e.g., DRD procurement for hard to reach

# Market Opportunities | DC Appliances

- Range of DC appliances in demand:
  - Television
  - EVD/DVD players
  - Radios
  - Fans
  - Refrigerators?
- Variety of potential models:
  - cash sales, consumer finance through MFIs & pay-as-you-go offerings
  - sold with SHS, or targeting existing SHS owners
  - OEM/branded manufacturers partnering with large corporates, financial institutions, etc.

Quality Assurance

Policy & Partnering with Government

Market Intelligence

Access to Finance

Business Development

Consumer Awareness

**Sun King Pro**  
Greenlight Planet Inc. Verify Online: [www.lightingglobal.org/spec/cgip-sunkingpro](http://www.lightingglobal.org/spec/cgip-sunkingpro)  
Results based on test procedures detailed in IEC 62573-6, ver. 2.0 Valid until: June, 2014

**Solar Run Time**

Mode	Run Time (Hours)
Turbo	6
Normal	15

Meets Lighting Global Minimum Quality Standards  
Mobile Charging  
1 Light Point

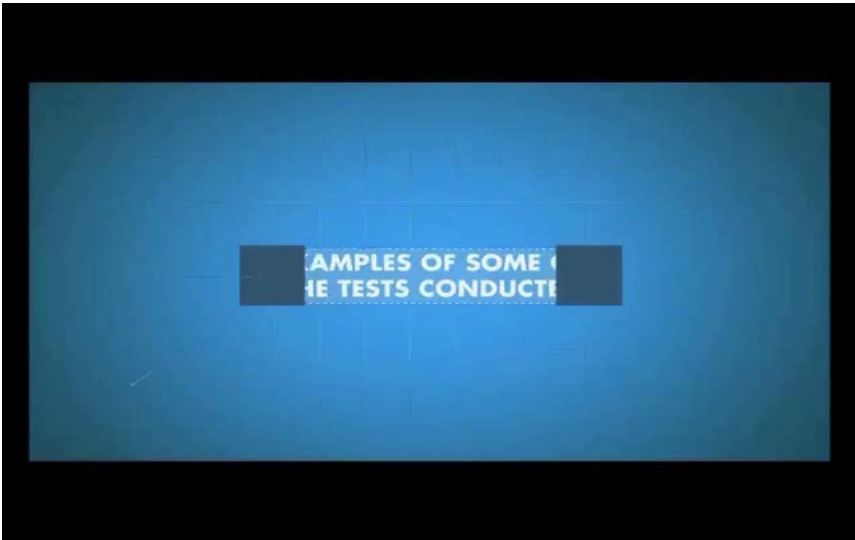
**Warranty Information**  
A 1-year product warranty.

Performance Measure	Brightness Setting**	
	Turbo	Normal
Full battery run time* (hours)	6	15
Run time per day of solar charging* (hours)	6	15
Total light output (lumens)	110	44
Total area with illumination > 25 lux** (m <sup>2</sup> )	0.38	--
Total lighting service (lumen-hours / solar-day)	660	660

\* Run time estimates do not account for mobile phone charging or other auxiliary loads; the run time is defined as the time until the output is 70% of the initial, stabilized output.  
\*\* Total area with illumination > 25 lux is determined by the maximum area with adequate illumination at a 0.75 m distance and at the distance from which the product would normally provide task lighting service.  
\*\*\* Additional brightness settings (not tested): Bed Light

Lighting Details	
Lamp type	LED
Description of light points	Single LED
Colour characteristics	CRI 59 CCT "Near Daylight" (3000-5000 K)
Distribution type	Wide
Lumen maintenance	99% of the original output remains after 2,000 hours run time

How products are tested



Quality Assurance

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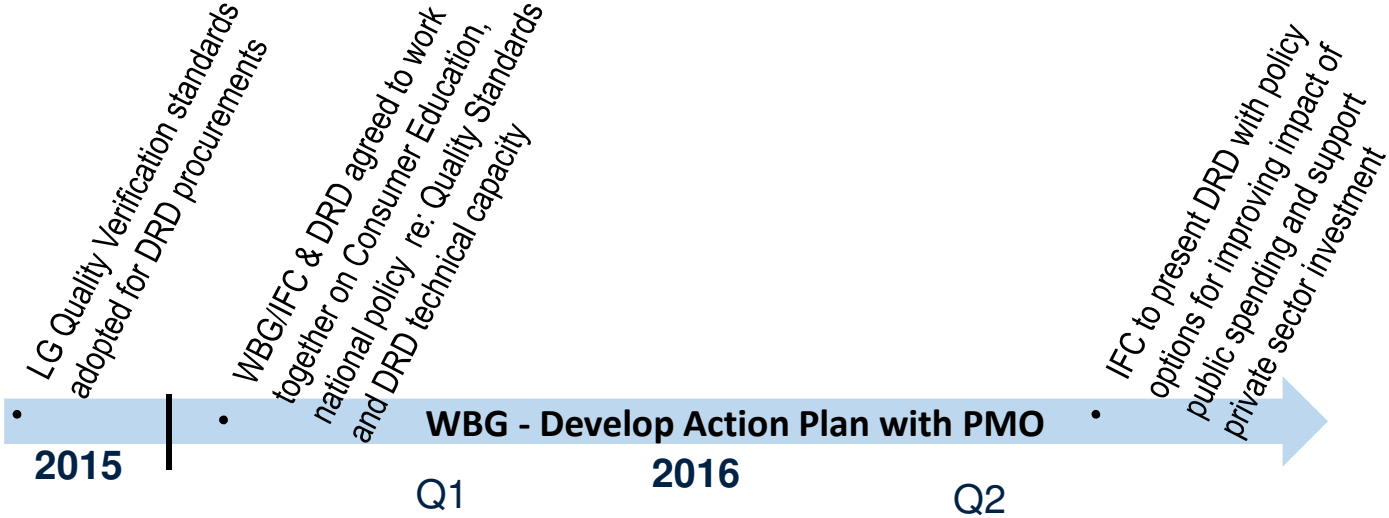
Business Development

Consumer Awareness

**Support could include:**

- Developing capacity to enforce standards
- Capacity development to implement policy
- Implementation of appropriate regulation
- Convening of working group of relevant regulatory agencies

Acting as the interface between public and private sector, to help companies manage uncertainty / risks.



Quality Assurance

Policy & Partnering with Government

Market Intelligence

Access to Finance

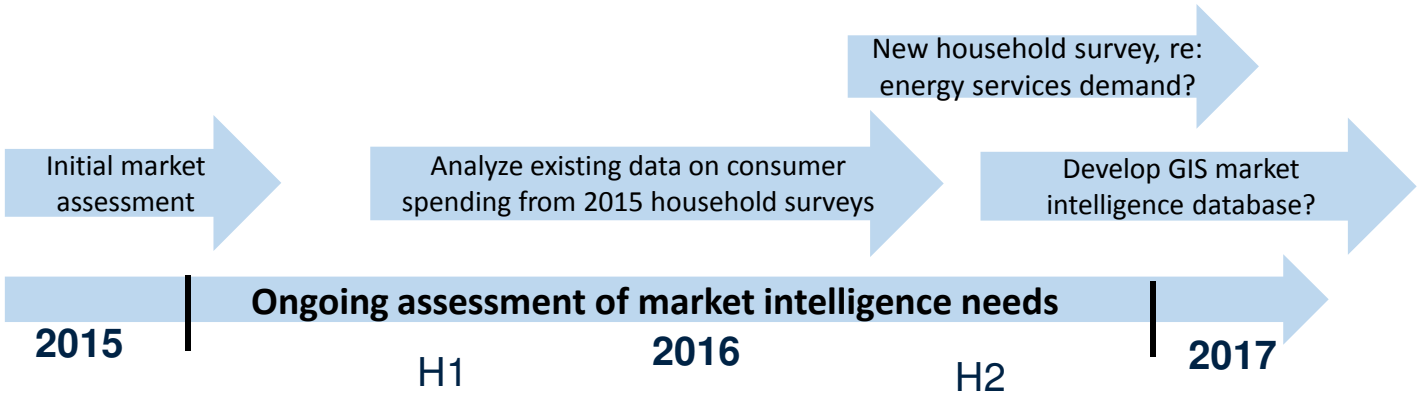
Business Development

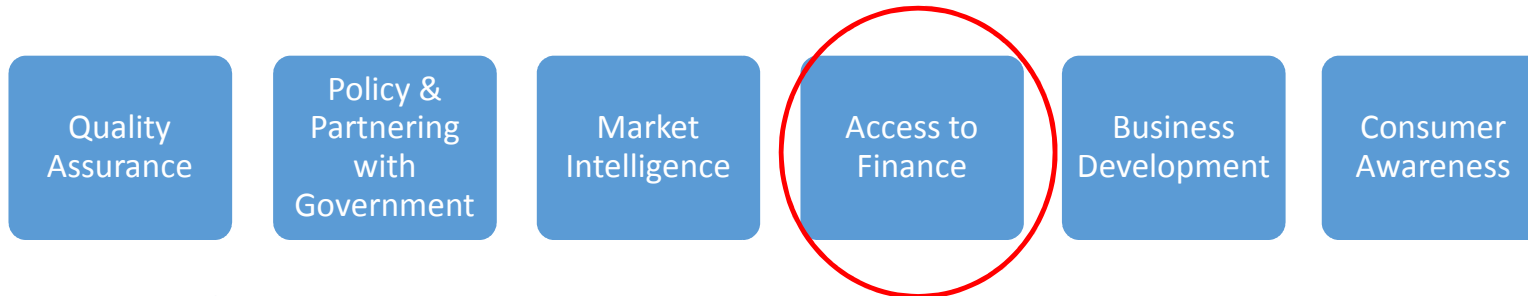
Consumer Awareness

**Global experience:**

- Develop & disseminate pertinent data
- Detailed market entry mapping of specific regions
- Consumer preferences reports
- Dissemination: films, case studies, technical notes, conferences, website

Transparent data (potentially GIS) and regular updates on MOEP grid extension, including modification of plans and progress by geography.



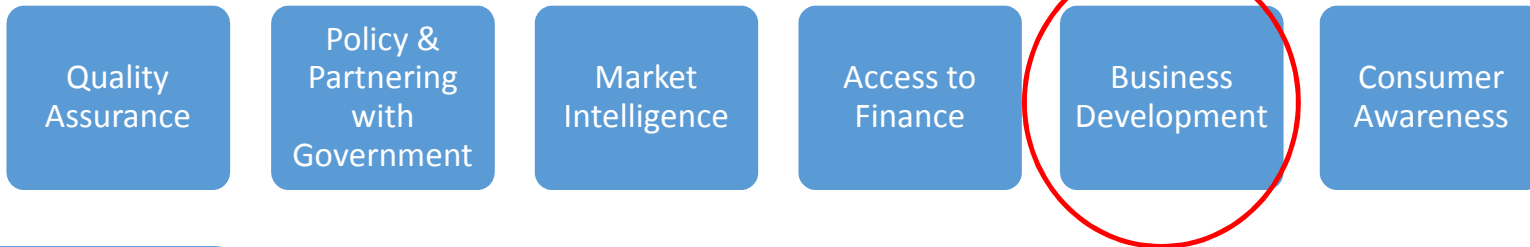


**Broad global experience:**

- Support new models for delivering end consumer financing
- Access to finance for importers and distributors
- Support local financial institutions to lend to off-grid

Support private commercial banks/MFIs to begin or scale up lending by developing a pipeline of viable deals through working with companies.



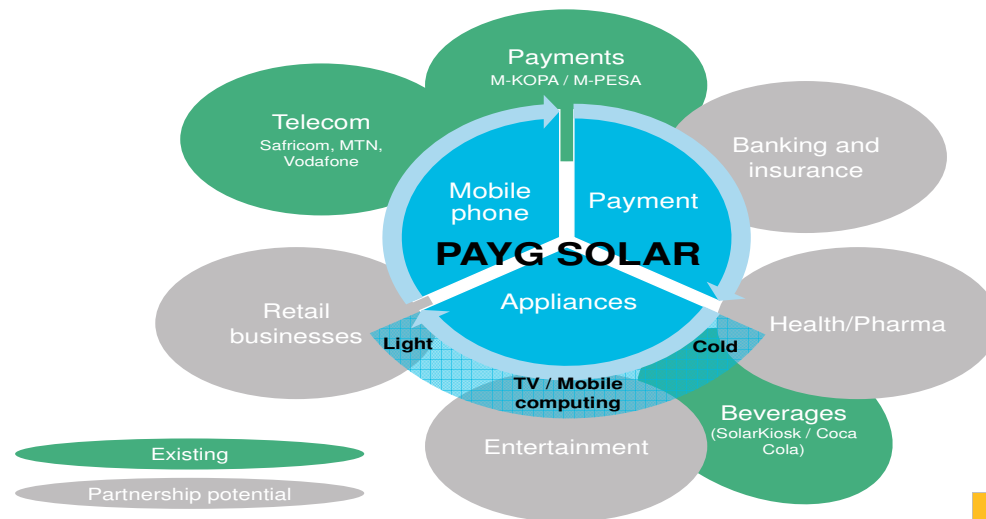


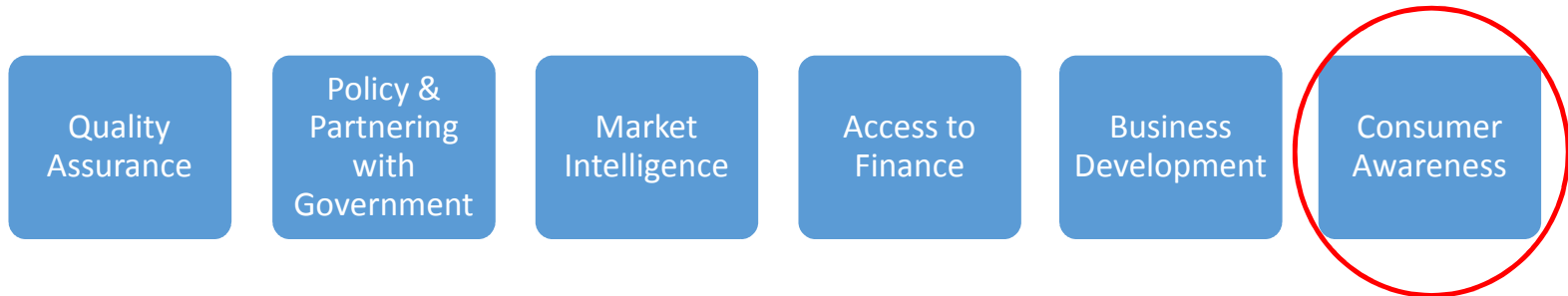
**Support could include:**

- helping develop a market entry strategy
- developing/analyzing business plans
- facilitating business linkages
- training supply chain actors
- solving supply chain, distribution and after sales challenges

B2B connections and support exploring potential of new business models in Myanmar.

-- Example: B2B opportunities for emerging PayGo business models --

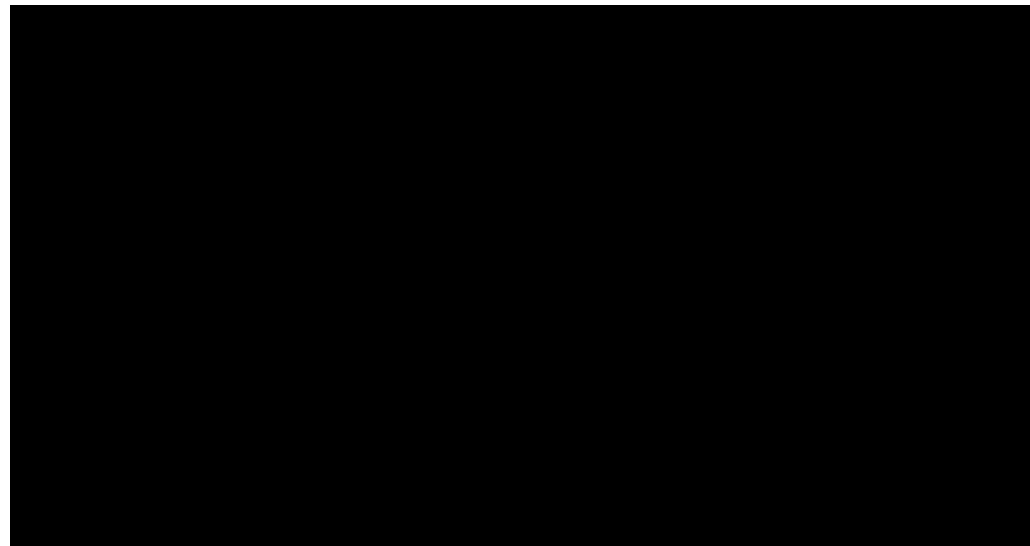




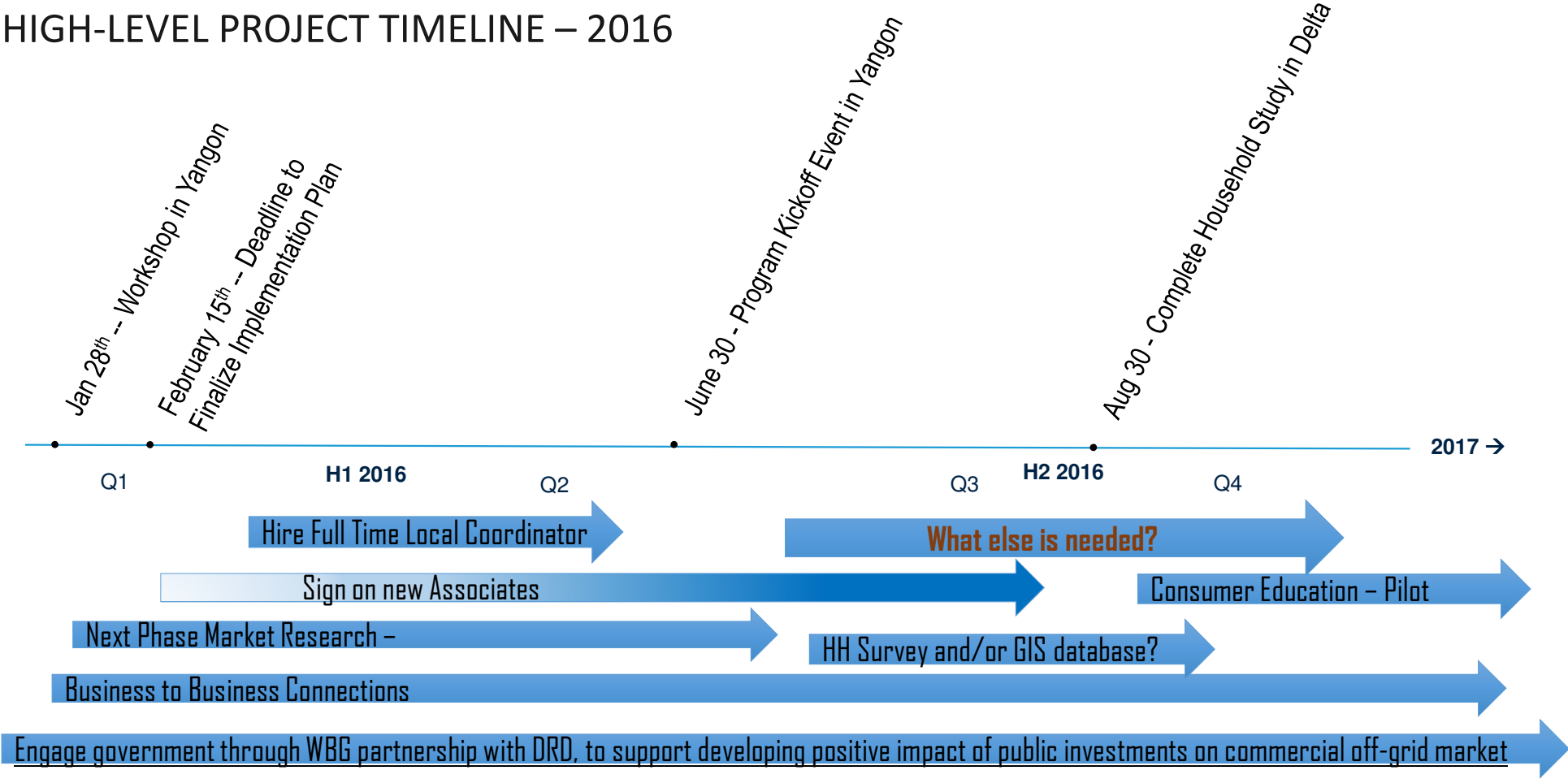
Some examples:

- Mobile App or Facebook site (credibly share product reviews and experiences)
- Roadshows
- Edutainment – i.e., Videos/EVDs
- Radio and Television Ads
- Program website

### Consumer Awareness Roadshow In Pakistan



# HIGH-LEVEL PROJECT TIMELINE – 2016



# Questions for Workshop Participants

- What's missing from our “big picture view” of the market?
- How should we focus our resources for future in-depth market assessment?
- What policies would be required to grow the commercial market for high quality solar?
- Is there a trusted voice for consumer education?
- What are the biggest risks/barriers for companies to sell quality solar?
- What could IFC do to lower risks sufficiently for companies to invest?

## Market Barriers | Risks for Companies

### **Major constraints identified by IFC market assessment:**

- Competition from very low-cost, poor quality solar products and appliances
- Lack of appropriate end-consumer finance options
- Large government programs potentially undermining willingness to pay for solar
- Lack of consumer awareness of what constitutes a quality product, including product lifetime cost-to-value

### Other major challenges identified by companies we spoke with this week:

- Lack of trained local technicians
- Foreign exchange risk
- Complicated warehousing/ logistics
- Financing bottlenecks for local financial institutions
- Lack of geospatial data on commercial demand

**What are we still missing?**

Feedback is welcome: [ablake@ifc.org](mailto:ablake@ifc.org)

**LIGHTING ASIA**  
Catalyzing markets for modern off-grid lighting

AN INNOVATOR OF  
**IFC** | International  
Finance Corporation