Challenges in the growth of solar lighting market in India- the distribution conundrum

IFC: A MEMBER OF THE WORLD BANK GROUP

**IBRD**
International Bank for Reconstruction and Development
- Loans to middle-income and credit-worthy low-income country governments

**IDA**
International Development Association
- Interest-free loans and grants to governments of poorest countries

**IFC**
International Finance Corporation
- Solutions in private sector development

**MIGA**
Multilateral Investment and Guarantee Agency
- Guarantees of foreign direct investment’s non-commercial risks

**ICSID**
International Centre for Settlement of Investment Disputes
- Conciliation and arbitration of investment disputes
Large market for off-grid solar lighting products

- 400mn rely on kerosene for lighting (Census 2011)
- 465mn people underserved (project 2013)
- 38% of the population

Can they buy?
- 42mn HH can afford a basic pico solar lighting system (PSLS)
  - 10mn can afford a multi-functional PSLS
  - 2mn can afford a basic SHS

Market penetration is at 5-7%

- 2011 Census of India - 81m households - 400m people off-grid
- 2013 Projections 77m households - 380m people
- Over 90% reside in rural areas
- Additional 85m people under electrified less than 8 hours a day
Why conventional models do not work for clean energy products

~15 million retail outlets in India supported by a huge whole-seller universe, yet...

• **Push vs. Pull** demand has to be created at the consumer level

• **Infancy of ‘brands’** does not help demand creation

• Current **low sales volumes** are not enticing enough for large private players and channel partners

• **Low government intervention** to support commercial scale-up like infrastructure support for building the supply chain

• **Low purchasing power** of the customers leads to difficulties in customer cluster formations, thus increasing supply chain issues

• **Absence of standardized/quality products and after sales service** dissuades established channels due to inherent risk to current business
Alternate distribution models—an option

• The Exclusive Village Level Entrepreneur (VLE)
• The Non-exclusive Village Level Entrepreneur (VLE)
• Traditional Retail
• Business Correspondent Channel
• The Large Corporate in-house Channel
• The MFI Channel
• Other distribution models
• The Multi Channel Approach
Innovation in Clean energy product distribution

- Manufacturers opting for a mix of distribution models to reach end consumers-VLE, Women SHS, government bodies, traditional retail
- The birth of new category of clean energy focused distribution companies unlike traditional consumer product companies-Frontier Markets in India, Solar Sisters and SunnyMoney in Africa
- Use of technology like Pay As You Go platforms to make distribution viable through increased business with last mile financing and order collation

Further need for innovative solutions on:

- **Reach**-Co-ordination/sharing of infrastructure between different rural based Organizations
- **Awareness** – Low cost solutions like digital technology to create on ground awareness
- **Skill development**-Training the last mile sales agents for basic repair and maintenance for effective after sales service
- **Affordability**-Last mile financing solutions like Pay As You Go to reach more number of consumers
- **Localized Sourcing**-Manufacturing hubs in some deep/large consumer belts for positive integration of business models
Lessons/Opportunities for Policymakers emerging from the distribution challenge

• Consider clean energy as mainstream alternate to grid power-IDCOL in Bangladesh has installed SHS and such Households are not considered off-grid
• Demarcate segments for government and private enterprise interventions- e.g. Small lanterns for Private enterprises and larger systems for Government/PPP
• Policymakers should focus on overarching programs for awareness creation, business sustainability, infrastructure development, rationalization of duties
• Reduce dependence on kerosene subsidies and free distribution of products –to promote private enterprise leading to profitable growth of Industry
• Align quality standards-Ethiopia-LG with government standards, for ease of business
• Co-ordination between Government, Public bodies , Private enterprises
THANK YOU
Integrated Campaign Design

Combines social and commercial objectives
Mobile Van Campaign

Bihar: 180 villages, 8177 participants
Rajasthan: 251 villages, 14782 participants
Uttar Pradesh: 274 villages, 33490 participants

Additionally 1355 number of neighbouring villages reached through smaller van campaign
Mohalla Meetings with Women

Bihar: 142 villages, 2836 participants
Rajasthan: 198 villages, 4952 participants
Uttar Pradesh: 217 villages, 6316 participants
School Connect Program

Bihar: 39 schools, 4681 participants
Rajasthan: 50 schools, 4939 participants
Uttar Pradesh: 55 schools, 5909 participants
Retail Connect Program

Bihar: 2474 retailers
Rajasthan: 1322 retailers
Uttar Pradesh: 3279 retailers