

Possible Role Of Microfinance Institution for Solar Home Systems Market Development

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Outline

- Indonesia Electrification Situation
- Solar Home Systems (SHS) Market Segment
- SHS Companies
- Financing Mechanism for SHS
- Typical Customers Profile
- Typical Credit Models
- Challenges
- Tips
- Summary

Indonesian Electrification Situation

70 millions persons without electricity
80 % located in rural areas
> 50 % outside Java-Bali
Electrification Target in 2020 is 90%

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Solar Home Systems Market Segmentation

36 districts have
been identified by
DJLPE for Self-
Energy Villages
using SHS

Cash market – short term financing
10 – 15 % - company

Credit – company
and MFI

Free given by
Government

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Solar Home Systems (SHS)

CONDITIONS

- Indonesia is one of the country that applied SHS in big scale
- Market is spoiled with free-given of Solar Home Systems from government project
- No proper training and technical assistance caused heavy broken systems in the field
- Give bad image of the systems reliability

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Establishing SHS Business

- Research on markets and customer demographics
- Design of System
- Raising Equity and managing working capital
- Training and oversight of both technical and sales staff
- Development of microfinance approach that is appropriate for the customer base**
- Management of the microfinance process (or strategic alliances with microfinance organizations)**
- Management of after sales services
- Recycling of batteries
- Repossession of units from nonpaying customers
- Accounting and record-keeping

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SHS Company

- **Firms face difficulties operating in rural areas**
- **Transportation cost is extremely high**
- **Extra costs arising from unanticipated maintenance, component replacement, outreach efforts and training**
- **Several companies are well developed but others are out of business**

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Possible Financing Mechanisms

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- **Through microfinance organizations and rural/commercial banks**
 - ❖ Microcredit
 - ❖ Leasing and Fee-for-Service Approaches
- **Direct Sales of SHS through dealers/company – Cash Market**

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Financing Mechanisms

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- Credit access difficult, but not insurmountable
 - Credit risk a serious concern - risk sharing is helpful
 - ❖ Diversify risk
 - ❖ Credit guarantees
 - Longer credit terms are needed to stimulate demand – but few MFIs are willing
 - Credit can be expensive

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TYPICAL SHS CUSTOMERS

SHS POTENTIAL CUSTOMERS PROFILE \$=Rp 8900

Profile Items	Rubber Trans Village		Palm Oil Trans Village	
	1	1	2	2
Average arean owned-hectare				
Average harvest per month-kg	300	300	2.500	2500
Selling per kg	Rp4.000	\$0,45	Rp600	\$0,07
Gross income per month	Rp1.200.000	\$134,83	Rp1.500.000	\$168,54
Cost of Cultivation and other deductions	Rp225.500	\$25,34	Rp360.500	\$40,51
Net income per month	Rp974.500	\$109,49	Rp1.139.500	\$128,03
Cost of living	Rp750.000	\$84,27	Rp750.000	\$84,27
Disposable income	Rp224.500	\$25,22	Rp389.500	\$43,76

Source: Shell Solar field survey 2005

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Typical Credit Model

- **Rural:**
 - ❖ Kupedes Rural Consumer Credit
 - ❖ DSP Productive Credit
 - ❖ Swamitra Bukopin
- **Urban:**
 - ❖ Columbia consumer credit – replacing gensets for the back up systems

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Micro Finance Role

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- **Expertise in managing microfinance/credit**
- **Vision in economic development through micro credit**
- **SHS company partnership with Microfinance Institutions**

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Some MFIs Profile

- **BRI has conducted pilot project SHS Kupedes for 2 companies; unfortunately the program are phased out**
- **DSP Danamon in 2005 plan to establish 600 units to reach 19,5 millions SMEs**
- **Swamitra Bukopin – for coastal people/fishermen**
- **Columbia Cash and Credit – 650 outlets and 16,000 sales force**

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Credit Features/Concerns for MFI

- Downpayment : 25 % of the price
- Loan Amounts – IDR 1 – 5 millions
- Loan Maturities: 6 months – 2 years – not longer
- Interest Rate: 24 % or higher per annum – to cover collection cost and high risk
- Collateral: SHS for the company and credit guarantee
- Default :
 - Repossess the systems – only cover 50 % of the credit loss

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Tips for MFI – what to look for in an Energy Company

- **Common Development Vision**
 - ❖ View lower income populations as a potential market
- **Reputable and Reliable**
 - ❖ Solid reputation of its staff, management, directors, good references, brand recognition, sound track record, self-sustainability, acceptable time period of operations
- **Local Market Presence**
 - ❖ Physical presence where MFI operates
- **Focus on After Sales Service**
 - ❖ Provide adequate service to the MFI's client within acceptable time frame

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Tips for MFI – what to look for in an Energy Company

- **Strong Business Principles**
 - ❖ Pricing, credit terms, product quality, flexibility product offerings
- **Capacity to Meet Needs of Clients**
 - ❖ Supply energy products best suited to the needs and purchasing power of the MFI's client
- **Technical Training**
 - ❖ Energy company must agree to train MFI staff, particularly “front office” who has direct contact with customers

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Tips for Energy Companies – what to look for in a MFI

- **Flexibility in Lending Models**
 - ❖ Flexible in designing financial instruments
- **Extensive and Diverse Reach**
 - ❖ Broad market coverage
- **Readiness to introduce Energy Lending**
 - ❖ Track record of innovation and pioneering in microfinance
- **Creditworthy and Sustainable**
 - ❖ Solid Track Record
- **Demand for Energy**
 - ❖ MFI should know its clients and markets

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Tips for Energy Companies – what to look for in a MFI

- **Top Management Buy-in and Internal Champion of Energy**
 - ❖ MFI needs to have acceptability and championing at the very top level in order to implement the necessary strategic changes
- **Dedicated Human Resources**
 - ❖ MFI willing to devote at least 1 staff member dedicated to working closely with the energy company
- **Internal Capacity to Support Energy-Lending Program**
 - ❖ Allocate sufficient human and financial resources to start
 - ❖ Make efforts to institutionalize energy lending – training and awareness at all levels within the MFI

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Summary

- Chances are high for SHS business and MFIs to start develop semi retail business
- SHS company has limited source to run internal microcredit and cash sales is smaller than credit payment basis
- While MFI do have the expertise to manage the risk and business in micro credit – whatever the product is
- SHS company capacity need to be strengthen to attract MFIs set up the partnership
- MFIs need to be flexible and sharpen the vision of low income as business opportunity for in energy sector i.e SHS
- Pilot projects to be done to test the market and proof customer willingness to pay