

CHECKLIST C
GATHERING INFORMATION ON LOCAL MARKET CONDITIONS

Village and Regional Data

The following questions are designed to assist in the gathering of information regarding the local area and villages targeted by the project. This information will provide specific data and enable an entrepreneur to assess the particular needs of the customers being targeted.

VILLAGE AND REGION DATA				
Name and size (approximate in Km or miles) of area being surveyed:				
# villages in area being surveyed:				
Total # villages being surveyed:				
Approximate # of occupied houses in region that are not associated to a specific village:				
VILLAGE DESCRIPTION				
	Village 1	Village 2	Village 3	Village 4
Village name:				
Location:				
Nearest large town:				
Distance from nearest large town:				

	Village 1	Village 2	Village 3	Village 4
Method of access and travel time:				
Temperature range:				
Approximate # of houses :				
# occupied houses:				
# houses under construction:				
# churches:				
# Health centers:				
# retail shops:				
# libraries:				
# government/ meeting buildings (i.e. Village Hall):				

	Village 1	Village 2	Village 3	Village 4
Where is water sourced from?				
Is irrigation used?:	Yes	Yes	Yes	Yes
	No	No	No	No
Is telephone/fax available?	Yes	Yes	Yes	Yes
	No	No	No	No
Where is the service provided?				
Are there any TVs?	Yes	Yes	Yes	Yes
	No	No	No	No
Is the signal strong and available?	Yes	Yes	Yes	Yes
	No	No	No	No
Which banks are present:				
Which NGOs are present:				
Are there any cooperatives?	Yes	Yes	Yes	Yes
	No	No	No	No

	Village 1	Village 2	Village 3	Village 4
What type of activities do cooperatives undertake?				
How are cooperatives organized?				
What policy/rule enforcement do cooperatives use?				
POPULATION DATA				
# households:				
Is the population increasing or decreasing?				
Is the village mainly male, female or balanced (circle one):	Male Female Balanced	Male Female Balanced	Male Female Balanced	Male Female Balanced
# of Primary schools:				
# of Secondary schools:				

TECHNICAL SKILL AVAILABILITY

	Village 1	Village 2	Village 3	Village 4
What electrical skills exist?	None	None	None	None
	Some	Some	Some	Some
	Plenty	Plenty	Plenty	Plenty
Where are the closest electrical skills located?				
What mechanical skills exist?	None	None	None	None
	Some	Some	Some	Some
	Plenty	Plenty	Plenty	Plenty
Where are the closest mechanical skills located?				

FINANCIAL AND INCOME INFORMATION

	Village 1	Village 2	Village 3	Village 4
Type of businesses in region (enter approximate # per category)				
Grain production:				
Vegetable cropping:				
Fruit farming:				
Chicken raising:				
Animal raising:				
Weaving/sewing:				
Cottage industry:				
Local retail businesses:				
Other (specify):				

	Village 1	Village 2	Village 3	Village 4
Average income per household:				
Top 5% of households:				
Bottom 5% of households:				
# of households per income group:				
# households with income in top 5%:				
# households with income in bottom 5%:				
Existing and available financing systems for: Housing:	Name of institution: Terms:			
Retail business:	Name of institution: Terms:			

	Village 1	Village 2	Village 3	Village 4
Cottage industries:	Name of institution: Terms:			
Farming:	Name of institution: Terms:			
Other (including energy):	Name of institution: Terms:			
Do any subsidies exist for the above specified activities? If so, please specify structure.				
Are there any existing credit programs?	Yes No	Yes No	Yes No	Yes No
What are the credit practices?	Interest rate: Term of loan:	Interest rate: Term of loan:	Interest rate: Term of loan:	Interest rate: Term of loan:
What guarantees are normally requested?				

	Village 1	Village 2	Village 3	Village 4
What collateral is usually given?				
What type of financing do people Prefer (circle one):	Individual loans Self selected groups Large groups Village lending	Individual loans Self selected groups Large groups Village lending	Individual loans Self selected groups Large groups Village lending	Individual loans Self selected groups Large groups Village lending

Housing Description

The following table is directed at collecting specific information on the structure of the households you will target. This information will enable you to assess whether the proposed technology accommodates the specific characteristics of the villages. The data will also facilitate the calculation of the number of components each household will require and assist with the development of a business plan. Please fill in the boxes describing and providing the specific information for each type of house in each of the villages being targeted (four boxes corresponding to four different types of houses have been provided for each village, use additional pages if additional types or additional villages are present). If houses are similar in all villages, provide the information for all villages under Village 1.

HOUSING DESCRIPTION				
VILLAGE 1	Type 1:	Type 2:	Type 3:	Type 4:
Approximate size of house (in square meters or feet):				
Number of buildings and rooms:				
Number of levels:				
Typical wall construction materials:				
Typical roof construction materials:				
VILLAGE 2:				
Approximate size of house (in square meters or feet):				
Number of buildings and rooms:				
Number of levels:				
Typical wall construction materials:				
Typical roof construction materials:				

VILLAGE 3	Type 1:	Type 2:	Type 3:	Type 4:
Approximate size of house (in square meters or feet):				
Number of buildings and rooms:				
Number of levels:				
Typical wall construction materials:				
Typical roof construction materials:				
VILLAGE 4:				
Approximate size of house (in square meters or feet):				
Number of buildings and rooms:				
Number of levels:				
Typical wall construction materials:				
Typical roof construction materials:				

Energy Consumption

The tables below will assess the current energy consumption as well as the monthly energy expenditure of the communities being targeted. The information in each of the boxes below should include the level of consumption for households, institutions and businesses in the villages.

HOUSEHOLD ENERGY CONSUMPTION						
(Monthly values)						
# Inhabitants per household	3 or less	4	5	6 or more	Unit Cost (Please specify if local currency or US\$)	Total Cost (Please specify if local currency or US\$)
Type of fuel						
Candles						
Dry cell batteries						
Lead acid battery recharges						
Kerosene						
Firewood						

# Inhabitants per household	3 or less	4	5	6 or more	Unit Cost (Please specify if local currency or US\$)	Total Cost (Please specify if local currency or US\$)
Type of fuel						
Bottled Gas						
Petrol/diesel						
Other (specify)						

COMMUNITY INSTITUTIONS ENERGY CONSUMPTION

(Total Cost per Month in local currency or US\$)

Institutions	Library	Village Hall	Medical Center	School	Church	Market
Type of fuel						
Candles:						
Dry cell batteries:						
Lead acid battery recharges						

Institutions	Library	Village Hall	Medical Center	School	Church	Market
Type of fuel						
Kerosene						
Firewood						
Bottled Gas						
Petrol/diesel						
Other (specify):						

BUSINESS ENERGY CONSUMPTION

(Total Cost per Month in local currency or US\$)

Institutions	Shops	Bakery	Farming	Post Office/ Bank	Other (specify)
Type of fuel					
Candles					
Dry cell batteries					

Institutions	Shops	Bakery	Farming	Post Office/ Bank	Other (specify)
Type of fuel					
Lead acid battery recharges					
Kerosene					
Firewood					
Bottled Gas					
Petrol/diesel					
Other (specify):					

Uses of Energy

To efficiently satisfy a customers' needs and supply a service that fully satisfies a target market's energy demand, a clear understanding is needed of the customer's specific energy needs. The following tables will assist in the collection of information on the uses of energy at the customer level.

USES OF ENERGY HOUSEHOLD/COMMUNITY INSTITUTION			
Type of fuel	Use (examples)	Use/ number of hours per day	Main problems (if any) linked to the type of fuel used (examples include smell, indoor smoke, time spent getting to supply source, etc.)
Candles	Light for reading, cooking, crafts		
Dry cell batteries	Radio		
Lead acid battery Recharges	Light, TV		
Kerosene	Lamps,		
Firewood	Cooking, heating		
Bottled Gas	Cooking, refrigeration		
Petrol/diesel			
Other (specify)			

Current Energy Supply and Costs

The following table will enable an entrepreneur to break down the costs of each fuel being consumed by the target customers and assesses their availability. This will facilitate a market and competition analysis.

ENERGY SUPPLY AND COSTS				
Type of fuel	Supply location	Transport Costs (describe transport mechanism)	Subsidies, taxes, tariffs or duties that apply	Unit Cost
Candles				
Dry cell batteries				
Lead acid battery recharges				
Kerosene				
Firewood				
Bottled Gas				
Petrol/ diesel				
Are people able to buy energy services all year or is the service usually tied to seasonal cash income? (Explain)				

<p>CHECKLIST D General Market Conditions</p>

- Existing Studies
- Proposed Energy Plans and Projects
- Macroeconomic Conditions
- National, Local Laws and Permits

Existing Studies

Region name:	
Name and date of national energy, economic or social studies:	
Name and date of regional/local energy, economic or social studies:	
Name and date of NGO energy, economic or social studies:	
Local regulations for start-up energy companies (briefly describe legal norms and standards that apply to the energy sector, including taxes and incentives – such as subsidies – to small and medium enterprises):	
What has been the performance of the national currency in the past five years?	
What has been the performance of inflation in the past five years?	

Proposed Energy Plans and Projects

REGIONAL CURRENT AND FUTURE ENERGY USES		
Type	Yes/No	Description (current and future uses and development plans)
Solar	Yes	
	No	
Wind	Yes	
	No	

Micro/small hydro	Yes	
	No	
Petrol engine	Yes	
	No	
Diesel Engine	Yes	
	No	
Gas	Yes	
	No	
Mini grid	Yes	
	No	
National grid (if no, specify nearest location)	Yes	
	No	
Other (please specify)		

Macroeconomic Data

Basic Country Macroeconomic Data

Country Size	
Population	
Per Capita GDP (in US\$)	
Per Capita Income (in US\$)	
Exchange Rate / \$US.	
Inflation (Annual)	
Interest Rates: Local Currency Deposits.	
Unemployment (urban data)	
Total Installed Grid Capacity (MW)	
Percent of Population Serviced by the Grid	
Per Capita Energy Consumption	
Energy Related Carbon Emissions, if applicable (mt)	

Laws, Regulations and Required Permits

Applicable Energy Sector Laws

Applicable Rural Energy Policies

Applicable Banking and Investment Laws and Regulations

Applicable Trade Laws and Regulations

Applicable Taxes, Tax Laws and Regulations, including depreciation Allowances

General Business Laws, Regulations and Commercial Codes

Permits or Permissions Needed to Study a Project or Undertake a Feasibility Study:

Title	Issuer	Process and Requirements	Comments

Permits Needed to obtain a Concession or Right to Use Natural Resources:

Title	Issuer	Process and Requirements	Comments

Permits Needed to Construct:

Title	Issuer	Process and Requirements	Comments

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Permits Needed to Assure Environmental Compliance:

Title	Issuer	Process and Requirements	Comments

Permits Needed to Produce, Sell or Distribute Energy:

Title	Issuer	Process and Requirements	Comments

Permits Needed to Operate a Project:

Title	Issuer	Process and Requirements	Comments

Other Permits:

Title	Issuer	Process and Requirements	Comments

<p>CHECKLIST G Project Team Checklist</p>

Technical: Are there specific engineering challenges that require specific skills on the team on a permanent basis? What are these challenges and what are these skills? Can these needs be met through a contract relationship or must one of the core team be an expert?

Technical Skill Needed	Team Member or Advisor with Appropriate Skill and Experience

Financial: What are the financial aspects of the project? Will there be ongoing financial requirements over the life of the project? Can a chief financial officer be hired later or should the team include a financial expert from the outset?

Financial Skill Needed (When?)	Team Member or Advisor with Appropriate Skill and Experience

Negotiations and Sales: Are there ongoing business relationships, with suppliers and customers that require regular updating terms and conditions? Will the project always be seeking new customers and relationships or will this be a one-time event?

Negotiator	Contracts and Issues to be negotiated

Legal: Will the regulations and contractual relationships governing the project be fixed or will they change over time, requiring regular attention.

Legal Expert(s)	Their Credentials and Experience

Political: Will regulations and policies affecting the project’s performance be evolving and require attention and lobbying?

Issues	Who Will Handle?

Project Team Funding: What is the minimum amount of funding needed to complete work underway and make the project attractive to lenders and investors? How much has the project team spent already (time and money) and on what? What will be realistically needed to complete all of the tasks identified? Even then, how much cash equity is needed to assure that the team retains a substantial portion of ownership and control? How much cash equity does the project team have?

Amounts Spent to Date	
Amounts to be Spent	

Entrepreneur Skill, Experience and Resources: Of the qualifications needed for the team what skills does the project entrepreneur possess? Are there partners who round out this skill set? Are there advisors who can be hired to assure that all the skills needed are represented? Does the team have an experience base that will “impress” lenders and investors? If not, is there an addition to the team that could solve this problem? Is it possible to contract with an experienced party as part of the team? If not, how does the energy entrepreneur propose to convince lenders and investors that all the skills and experience needed are at hand? Does the team have the time and money needed to complete the work identified? What about the cash equity to be credible in negotiating with lenders and investors? Is there an early stage financial source available to supply these funds? What will the team be giving up and gaining by taking a financial partner?

Skills and Experience Needed	Team and Advisors	Strength or Weakness?
Technical		
Financial		
Negotiating		
Legal		
Other		
Near-term \$\$\$ Needs		