



The Mini-Grid Builder

*“A web tool for reducing
project development up-
front costs”*





Why a builder?



- Each mini-grid project is unique, the demand and possible outputs are **site specific**.
- The higher the **up-front cost** (feasibility studies), the higher the tariff.
- Each project's commercial viability is directly linked to the effective demand. There is a need for a standardized approach for **demand assessment**.
- Project developers need a handy **tariff setting tool** (Which does not require an MBA in finance)
- Need for a shared **framework for data collection**.



Introducing what the mini-grid builder does

- Provides a **framework** for data collection (for feasibility studies)
- Helps reducing **upfront costs**. The tool output is a site specific pre-feasibility studies.
- Provides a workable assessment of the **effective demand** (based on ATP and WTP)
- Calculates realistic and applicable **electricity tariffs** based on LCOE
- Project data is stored in the database for future updates / reviews

Savings incurred in Kenya on a mini-grid feasibility study: **up to 15%** on project total costs.

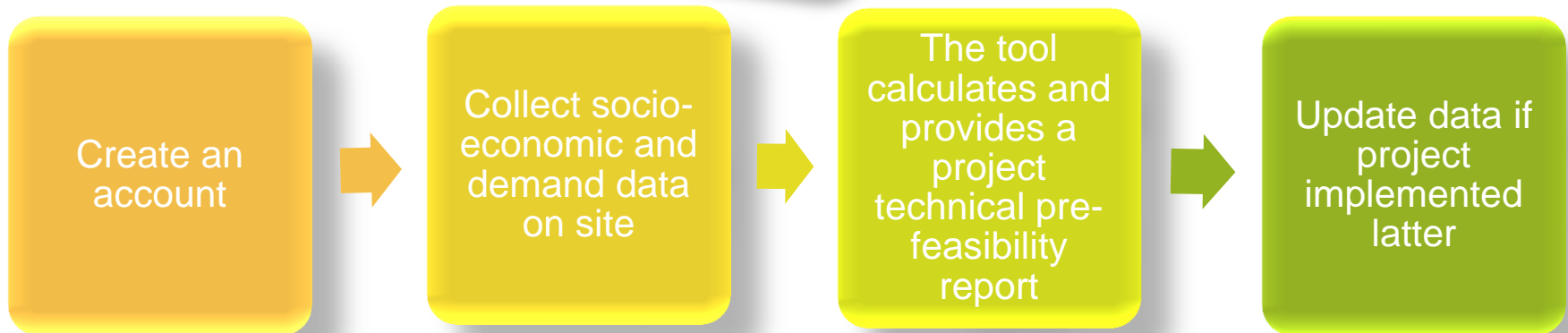


How it works

- The tool is available for free on :



How to use it :





Tool Overview

Willingness to pay*

What is important to you? <input type="text" value="please choose"/>	What most likely will drive you to connect? <input type="text" value="please choose"/>	Will an electricity mini-grid power improve your life or business somehow? <input type="text" value="please choose"/>	On which base do you think the provision of electricity should be? <input type="text" value="please choose"/>
Who decides for you to pay for electricity? <input type="text" value="please choose"/>	Do you already have an individual solar system? <input type="text" value="please choose"/>	How happy are you with your current electricity supply? <input type="text" value="please choose"/>	Does your solar system cover your current electricity needs? <input type="text" value="please choose"/>

Ability to pay

Occupation

Ability to pay per month for energy*

Income per month*
 USD

Current Energy Expenditure*
 USD

- Data collection for the tool is done in a questionnaire format with a mixture of open, and closed ended questions.
- Information collected is divided into three segments, and a final report containing all input data calculations



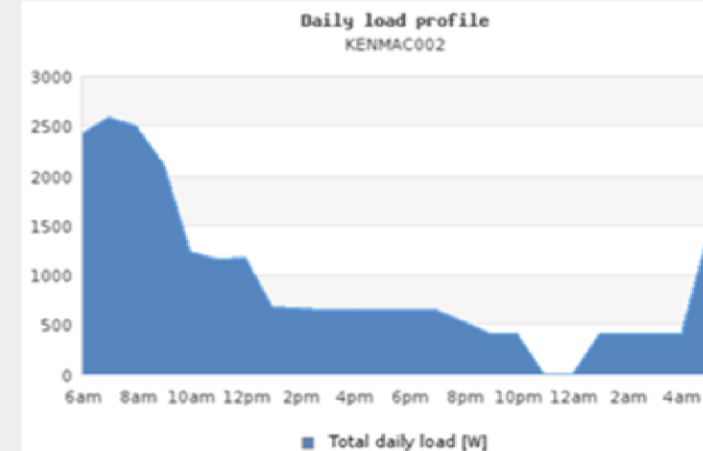


Tool Overview

The final report generated by the tool displays input data in tabular and graphical form. Making it easy for customers to correlate and understand budget and technical estimates.

Results from the load assessment

Time	Households	Businesses	Anchor Clients	Total load
Load (W)				
06:00	2410	0	0	2410
07:00	2580	0	0	2580
08:00	2490	0	0	2490
09:00	2114	0	0	2114
10:00	1229	0	0	1229
11:00	1154	0	0	1154
12:00	1164	0	0	1164
13:00	665	0	0	665
14:00	655	0	0	655
15:00	645	0	0	645





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