

Off-grid Electrification Solution

Prototype implementation

prototype material delivery

demonstrating a working prototype

MPPT charge controller implementation

Buck-converter

Inductor implementation

MOSFET driver implementation

Buck-converter assembling and testing

incremental conductance algorithm

Algorithm implementation

Algorithm testing

demonstrating improved system with MPPT charge controller.

DC-AC inverter implementation

Astable multivibrator

Implementation

Testing for 50Hz square wave

Third order low passive filter

Assembling and testing for sine wave

High frequency transformer

Implementation

Testing

Demonstrating an improved system with additional AC loads.

Load protection implementation

Over-voltage protection on battery

Under-voltage protection on battery

Short-circuit protection

Over-current protection

Demonstrating an improved system with functional load protection mechanism

Packaging