

A2EI

PROJECT INFORMATION

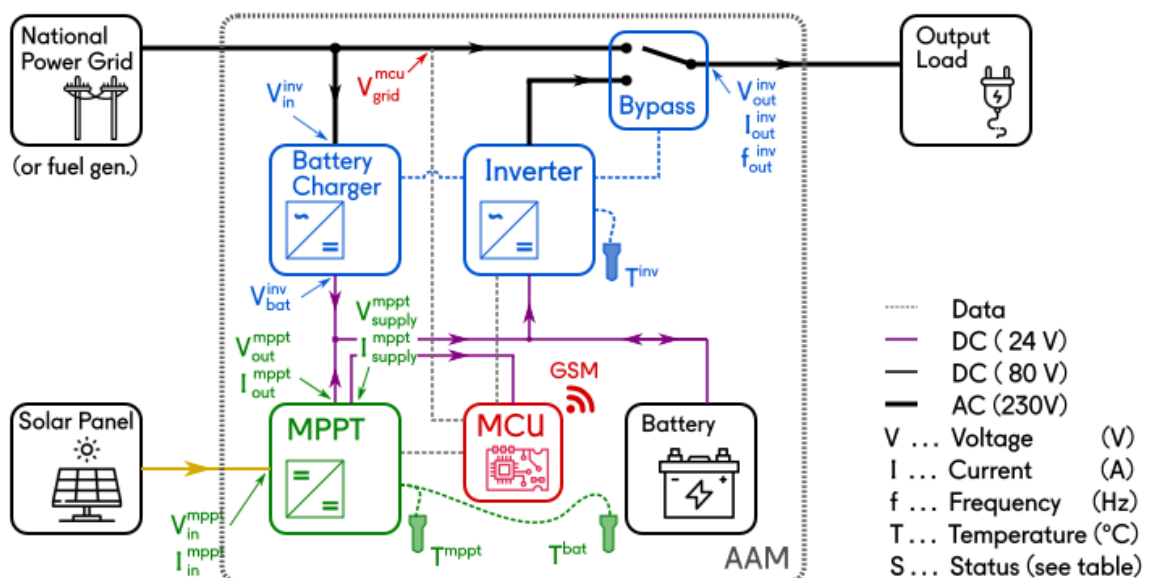
The "Solar Killed the Generator Star" (SKGS) Project by the Access to Energy Institute (A2EI)

The Access to Energy Institute decided to dedicate its core resources to work on providing a standalone solar generator to substitute fuels generators in Nigeria. The project kickstarted in April 2019.

By the end of 2020 our Tier 4 solar generators hit the stage of a first commercial product. We named them AAM systems.

We are dedicated to share all the information we are gathering with like-minded innovators in the off grid solar sector. This README introduces the data collection process and the data structure.

AAM SYSTEM COMPONENTS



	Status	Contained Information
Inv	inverter	Bypass On/Off, Grid available, UPS normal/failed/test
MPPT	charging	No chrg./float/boost/equalization standby/running, normal/faulty
	battery	Voltage normal/over/under Temperature normal/over/under
	state of charge	Estimate of charge in battery Originally designed for Li-Ion batteries, thus faulty here

DB ATTRIBUTES

source	variable	data type	description
meta	aam_id	ID	unique identifier of AAM
	latitude	-	latitude
	longitude	-	longitude
	user_type	micro enterprise or household	describes the type of installation surrounding
	bat_capacity	watt hours (Wh)	maximum battery capacity
	inv_capacity	volts amperes (Va)	maximum inverter capacity
	pv_capacity	watt peak (Wp)	maximum photovoltaic capacity
MCU	timestamp_utc	DD.MM.YYYY	time zone UTC, local time zone is WAT
	input_voltage_grid	volts (V)	grid input voltage
Inverter	output_voltage_inv	volts (V)	AAM output voltage
	output_current_inv	amperes (A)	AAM output current
	temperature_inv	degree Celsius (°C)	inverter internal temperature
	status_inv	binary	inverter status
Solar Charger	input_voltage_panel	volts (V)	PV input voltage
	input_current_panel	amperes (A)	PV input current
	output_voltage_mppt	volts (V)	MPPT output voltage
	output_current_mppt	amperes (A)	MPPT output current
	temperature_mppt	degree Celsius (°C)	MPPT internal temperature
	temperature_bat	degree Celsius (°C)	outer battery temperature
	status_charging_mppt	binary	MPPT status