

MiGUEL Project

Chapter 1 : Disclaimer

This report was created automatically. The calculations and results are based on the data entered.

Chapter 2 : Base data

Project name: MiGUEL Project

Time frame:

Start time: 01/01/2021, 00:00:00

End time: 31/01/2021, 23:59:00

Time resolution: 0:01:00

Economy:

Currency: US\$

CO2-price: 2021: 25, 2022: 30, 2023: 35, 2024: 40, 2025: 55, 2026: 65 US\$/kg

Feed-in-tariff: 0.0 US\$/kWh

System lifetime: 20 a

Interest rate: 0.03

Discount rate: 0.03

Ecology:

CO2-factor grid: 0.42 kg/kWh

CO2-factor diesel: 0.2665 kg/kWh

Location:

City:

ZIP code: None

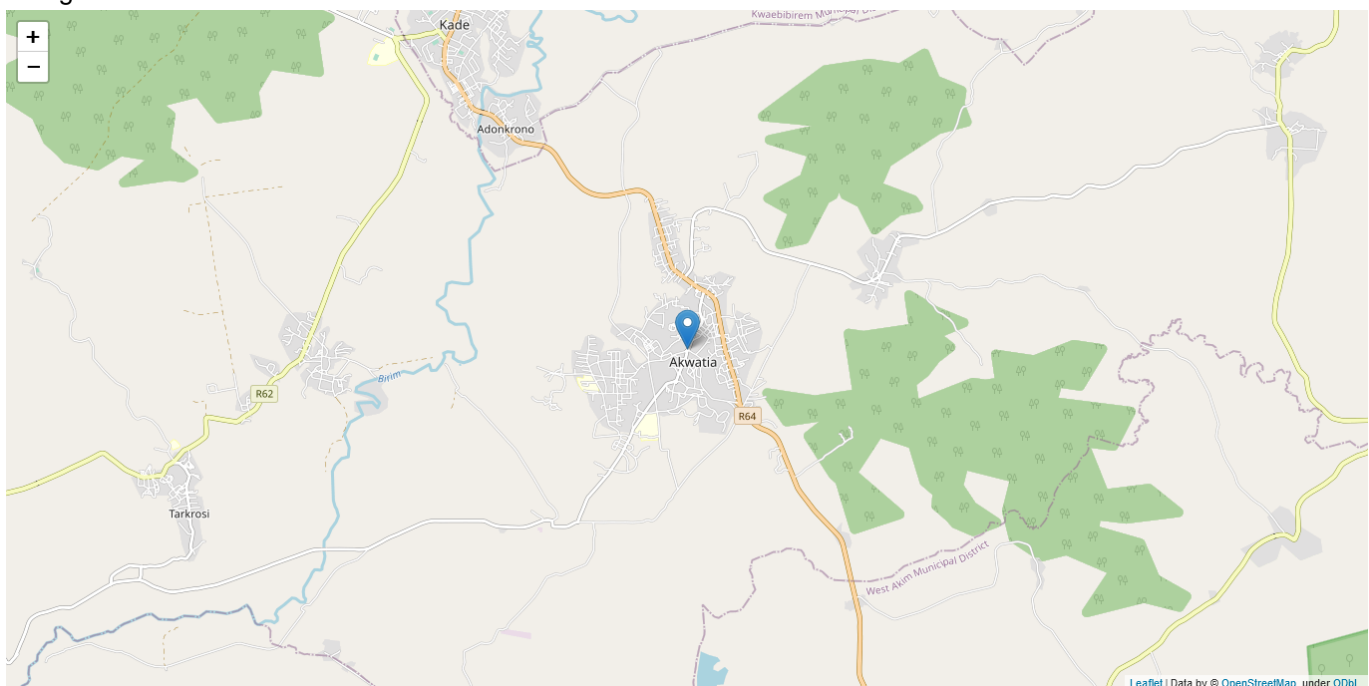
State: Eastern Region

Country: Ghana

Country code: gh

Latitude: 6.0442°

Longitude: -0.7983°



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Chapter 3 : System configuration

Overview over all system components:

Energy supply:

Component	Name	P [kW]	i_c [US\$/kW]	I_c [US\$]	om_c [US\$/kW]	OM_c [US\$]
PV System	PV_1	2.282	1000.0	2281	0.0	0
PV System	PV_2	5.134	1000.0	5133	0.0	0
Wind Turbine	WT_1	4200.0	1000.0	4200000	0.0	0
Diesel Generator	DG_1	10.0	1000.0	10000	0.0	0

Energy Storage:

Component	Name	P [kW]	W [kWh]	i_c [US\$/kWh]	I_c [US\$]	om_c [US\$/kWh]	OM_c [US\$]
Energy Storage	ES_1	50.0	50	1000.0	50000	0.0	0

P : Nominal power

i_c: Specific investment cost

I_c: Investment cost

om_c: Specific operation maintenance cost

OM_c: Operation maintenance cost

W: Capacity

Chapter 4 : Renewable energy supply

Renewable energy production from 01/01/2021, 00:00:00 to 31/01/2021, 23:59:00.

