European Commission

PVGIS: Photovoltaic Geographic Information System

Performance of grid-connected PV

System Data

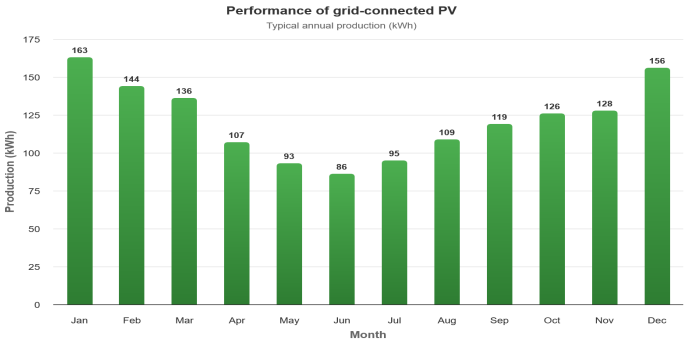
Parameter	Value
Latitude	6.922022
Longitude	-73.905921
PV Technology	crystallineSilicon
Installed Power	1.1 kWp
System Loss	14 %
Mounting Position	freeStanding
Slope	35 °
Azimuth	180 °

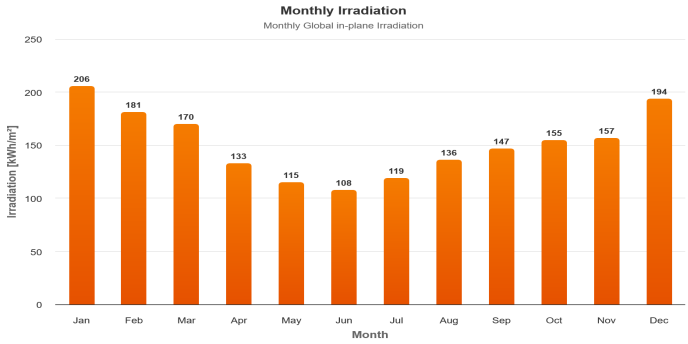
Simulation outputs

Output	Value
Yearly PV energy production [kWh]	1463
Year-to-year variability [kWh]	27
Yearly in-plane irradiation [kWh/m²]	1822

Factors impacting performance:

Effect	Value
Angle of incidence [%]	-2.29 %
Spectral effects [%]	0.00 %
Temperature and low irradiance [%]	-13.17 %
Total loss (including system losses) [%]	-27.04 %



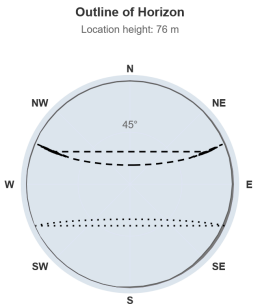


Monthly PV energy and solar irradiation

Month	E_m [kWh]	H(i)_m [kWh/m²]	SD_m [kWh]
Jan	163.2	205.5	0.00
Feb	143.6	181.3	0.00
Mar	136.1	170.3	0.00
Apr	107.3	133.3	0.00
May	92.9	115.4	0.00
Jun	86.1	107.6	0.00
Jul	95.2	119.3	0.00
Aug	109.5	136.3	0.00
Sep	118.6	147.3	0.00
Oct	126.2	155.5	0.00
Nov	128.0	157.0	0.00
Dec	156.1	193.6	0.00

E_m: Average monthly electricity production from the defined system [kWh].
H(i)_m: Average monthly sum of global irradiation per square meter received by the modules of the given system [kWh/m²].
SD_m: Standard deviation of the monthly electricity production due to year-to-year variation [kWh].

Outline of Horizon



Horizon height
Sun height, June (dashed line)
Sun height, December (dotted line)

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