Performance of grid-connected PV

PVGIS-5 estimates of solar electricity generation:

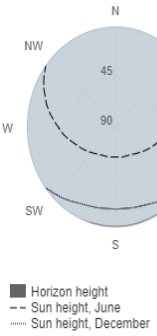
Provided inputs:

Latitude/Longitude:
Horizon:
Database used:
PV technology:
PV installed:
System loss: 14

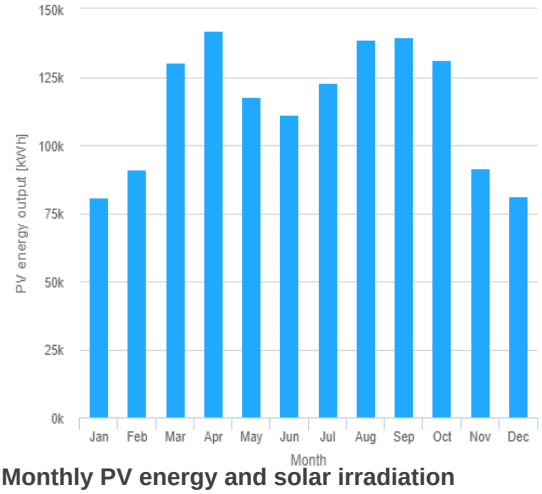
Simulation outputs

Slope angle: <font style="vertical-align: inherit;">
Azimuth angle: <font style="vertical-align: inherit;">
Yearly PV energy production: <font style="vertical-align: inherit;">
Yearly in-plane irradiation: <font style="vertical-align: inherit;">
Year-to-year variability: <font style="vertical-align: inherit;">
Changes in output due to:
Angle of incidence: <font style="vertical-align: inherit;">
Spectral effects: <font style="vertical-align: inherit;">
Temperature and low irradiance: <font style="vertical-align: inherit;">
Total loss: <font style="vertical-align: inherit;">
PV electricity cost [per kWh]: <font style="vertical-align: inherit;">

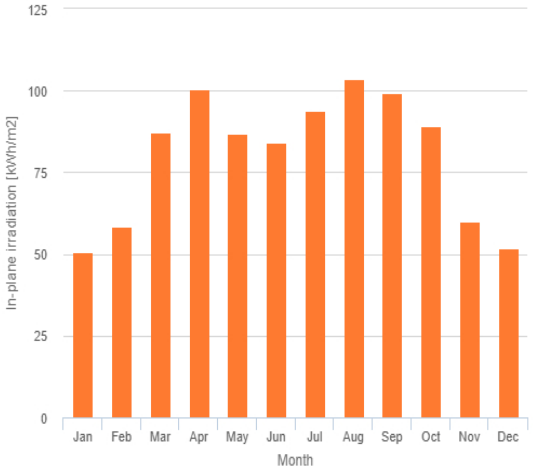
Outline of horizon at chosen location:



Monthly energy output from fix-angle PV system:



Monthly in-plane irradiation for fixed-angle:



Monthly PV energy and solar irradiation

Month	E_m	H(i)_m	SD_m
January	81020.7	50.7	24017.2
February	90918.8	58.4	24729.7
March	130359.8	87.3	29709.0
April	142183.1	100.4	24934.9
May	117973.8	86.9	19890.2
June	111122.8	84.1	13521.0
July	122700.9	93.7	12098.4
August	139011.1	103.5	12943.7
September	139562.9	99.2	22743.5
October	131244.8	89.3	32494.0
November	91578.3	60.0	21950.8
December	81330.7	52.0	24313.8

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].

Report generated on 2022/12/03