Performance of grid-connected PV

PVGIS-5 estimates of solar electricity generation:

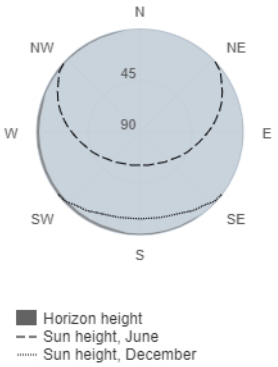
Provided inputs:

Latitude/Longitude:	52.408, 16.930
Horizon:	Calculated
Database used:	PVGIS-CMSAF
PV technology:	Crystalline silicon
PV installed:	2.72 kWp
System loss:	14 %

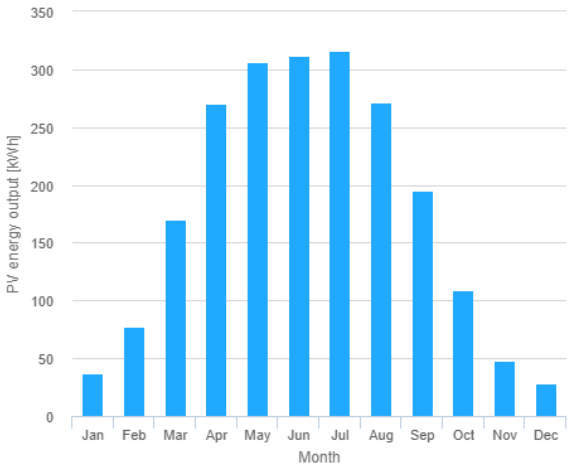
Simulation outputs

Slope angle:	35 °
Azimuth angle:	90 °
Yearly PV energy production:	2140 kWh
Yearly in-plane irradiation:	1030 kWh/m²
Year to year variability:	92.80 %
Changes in output due to:	
Angle of incidence:	-3.9 %
Spectral effects:	1.6 %
Temperature and low irradiance:	-8.7 %
Total loss:	-23.3 %

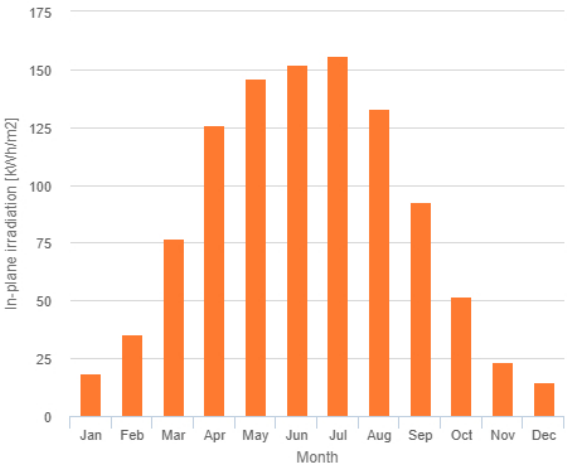
Outline of horizon at chosen location:



Monthly energy output from fix-angle PV system:



Monthly in-plane irradiation for fixed-angle:



Monthly PV energy and solar irradiation

Month	Em	Hm	SDm
January	37.5	18.4	4.01
February	77.8	35.2	16.9
March	170	76.9	22.9
April	270	126	38.5
May	306	146	35.1
June	312	152	21.3
July	316	156	29.3
August	272	133	22.4
September	195	92.7	21.4
October	109	51.6	18
November	47.7	23.4	11.4
December	28.2	14.7	4.51

Em: Average monthly electricity production from the given system [kWh].

Hm: Average monthly sum of global irradiation per square meter received by the modules of the given system [kWh/m²].

SDm: Standard deviation of the monthly electricity production due to year-to-year variation [kWh].

The European Commission maintains this website to enhance public access to information about its initiatives and European Union policies in general. Our goal is to keep this information timely and accurate. If errors are brought to our attention, we will try to correct them.
However the Commission accepts no responsibility or liability whatsoever with regard to the information on this site.
This information is: i) of a general nature only and is not intended to address the specific circumstances of any particular individual or entity; ii) not necessarily comprehensive, complete, accurate or up to date; iii) sometimes linked to external sites over which the Commission services have no control and for which the Commission assumes no responsibility; iv) not professional or legal advice (if you need specific advice, you should always consult a suitably qualified professional).
Some data or information on this site may have been created or structured in files or formats that are not error-free and we cannot guarantee that our service will not be interrupted or otherwise affected by such problems. The Commission accepts no responsability with regard to such problems incurred as a result of using this site or any linked external sites.

Joint Research Centre

PVGIS ©European Union, 2001-2017.
Reproduction is authorised, provided the source is acknowledged, save where otherwise stated.

Report generated on 2019/10/17