HOZAMSZÁMÍTÁS
Polgármesteri Hivatal és Gondozási központ
H-8105 Pétfürdő, Berhidai út 6/c.
K-i tető: 9,96 kWp méretű fotovoltaikus erőmű

Performance of grid-connected PV

PVGIS-5 estimates of solar electricity generation:

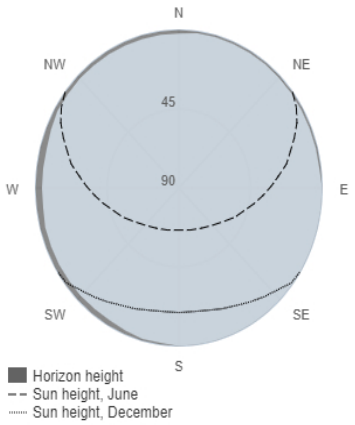
Provided inputs:

Latitude/Longitude:	47.165, 18.124
Horizon:	Calculated
Database used:	PVGIS-SARAH
PV technology:	Crystalline silicon
PV installed:	9.96 kWp
System loss:	11 %

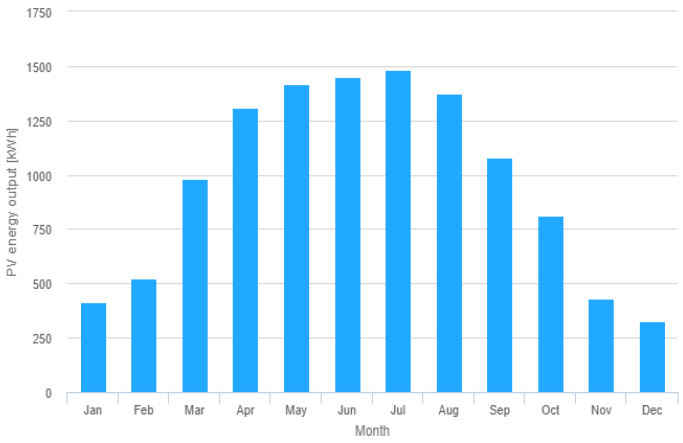
Simulation outputs

Slope angle:	30 °
Azimuth angle:	-50 °
Yearly PV energy production:	11595.14 kWh
Yearly in-plane irradiation:	1421.66 kWh/m²
Year-to-year variability:	622.65 kWh
Changes in output due to:	
Angle of incidence:	-3.08 %
Spectral effects:	1.27 %
Temperature and low irradiance:	-6.25 %
Total loss:	-18.11 %

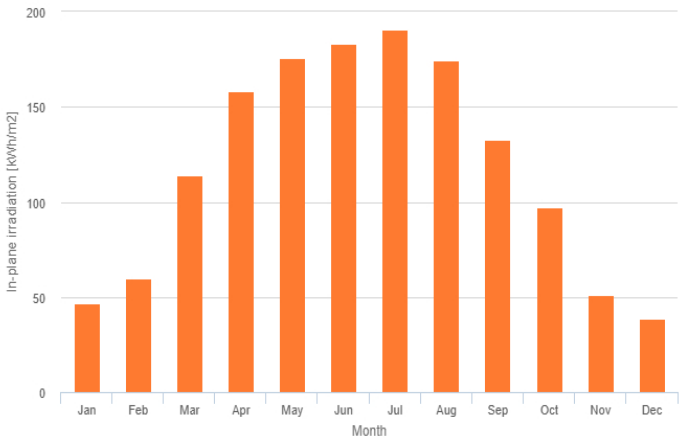
Outline of horizon at chosen location:



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	412.6	47.0	103.1
February	522.2	59.8	124.6
March	980.0	113.9	165.6
April	1307.4	158.5	145.4
May	1417.5	175.6	149.1
June	1448.9	183.0	78.2
July	1482.7	190.4	132.5
August	1372.5	174.5	144.6
September	1078.4	132.6	145.3
October	813.1	97.2	120.1
November	432.6	50.8	89.7
December	327.4	38.3	76.4

E_m: Average monthly electricity production from the given 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 2021/01/28