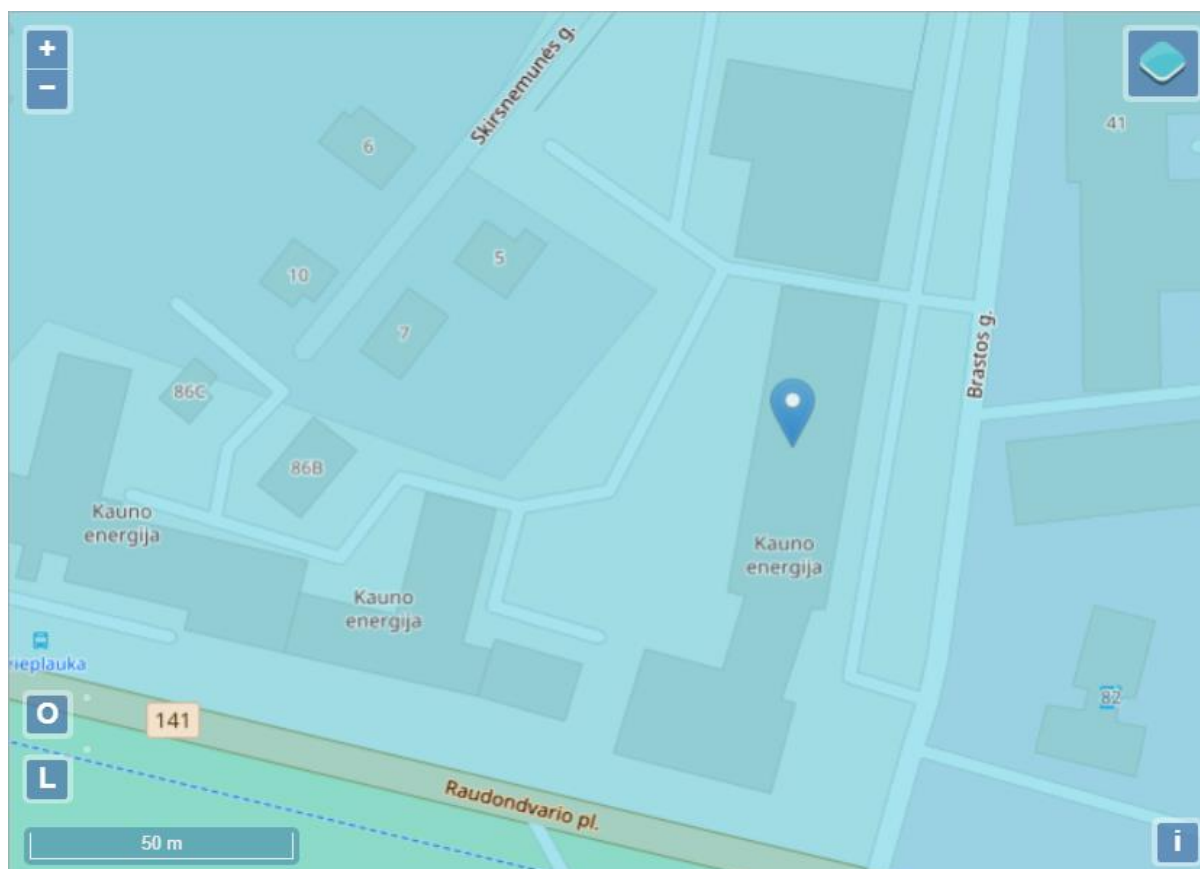


## SAULĖS ELEKTRINĖS ADRESU RAUDONDVARIO PL. 84

### MODELIAVIMO ATASKAITA

Elektrinės numatyta galia	150	kWp
Vieno modulio galia	0,395	kWp
Modulių skaičius	380	vnt.
Faktinė elektrinės galia	150,1	kWp
Skaičiuojamųjų metų bendroji saulės spinduliuotė	1029,06	kWh/m <sup>2</sup>



# Performance of grid-connected PV

PVGIS-5 estimates of solar electricity generation:

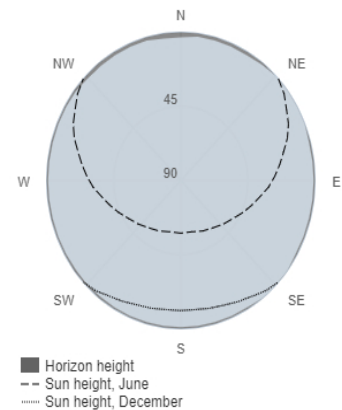
## Provided inputs:

Latitude/Longitude: 54.908,23.873  
Horizon: Calculated  
Database used: PVGIS-ERA5  
PV technology: Crystalline silicon  
PV installed: 150.1 kWp  
System loss: 10 %

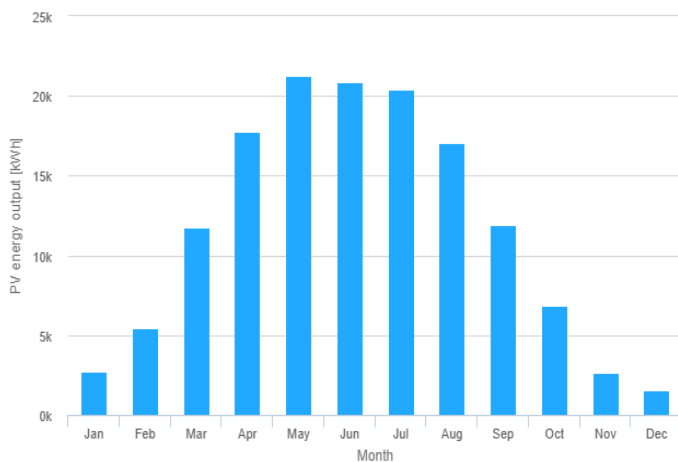
## Simulation outputs

Slope angle: 10 °  
Azimuth angle: 5 °  
Yearly PV energy production: 140216.36 kWh  
Yearly in-plane irradiation: 1119.35 kWh/m<sup>2</sup>  
Year-to-year variability: 5059.33 kWh  
Changes in output due to:  
Angle of incidence: -4.07 %  
Spectral effects: 1.51 %  
Temperature and low irradiance: -4.78 %  
Total loss: -16.54 %

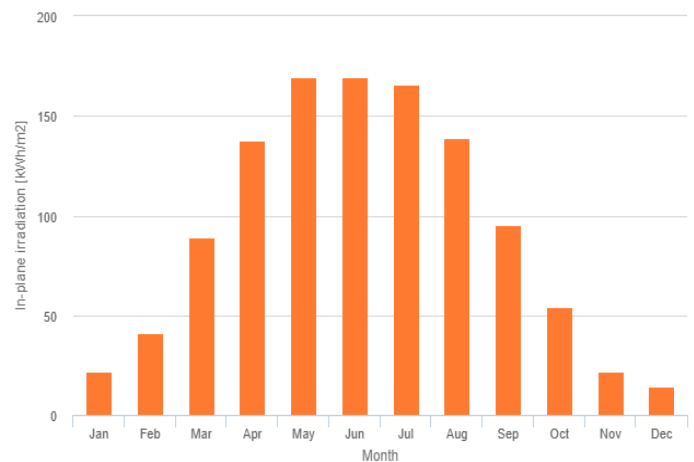
## Outline of horizon at chosen location:



## 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	2737.0	21.9	287.6
February	5424.1	41.1	674.2
March	11735.188.9	1519.1	
April	17776.6137.9	1962.2	
May	21224.9169.3	1725.1	
June	20874.1169.7	1903.1	
July	20409.4166.0	1658.9	
August	17082.3139.1	1717.0	
September	11939.895.3	1304.3	
October	6846.3	54.2	1255.0
November	2619.8	21.8	431.3
December	1546.8	14.1	218.5

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/m<sup>2</sup>].

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