GLOBAL SOLAR ATLAS
BY WORLD BANK GROUP

Khmelnytskyi Oblast

49.51693°, 027.115813°
O-231705, Khmelnytskyi Oblast, Ukraine
Time zone: UTC+03, Europe/Kyiv [EEST]

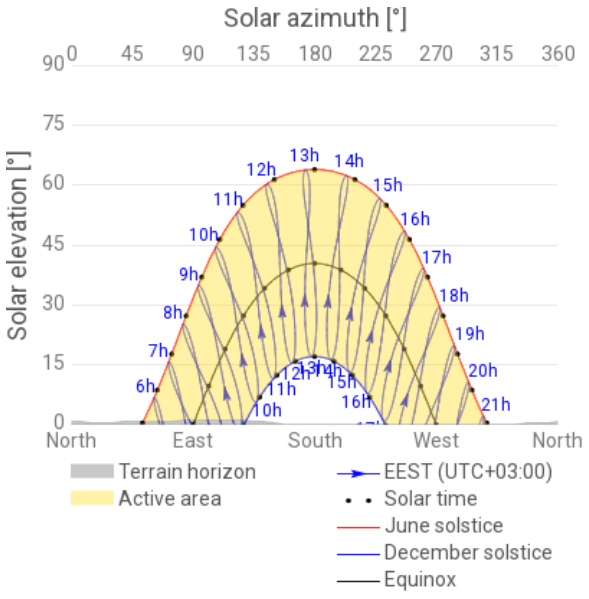
Report generated: 3 Apr 2026

SITE INFO

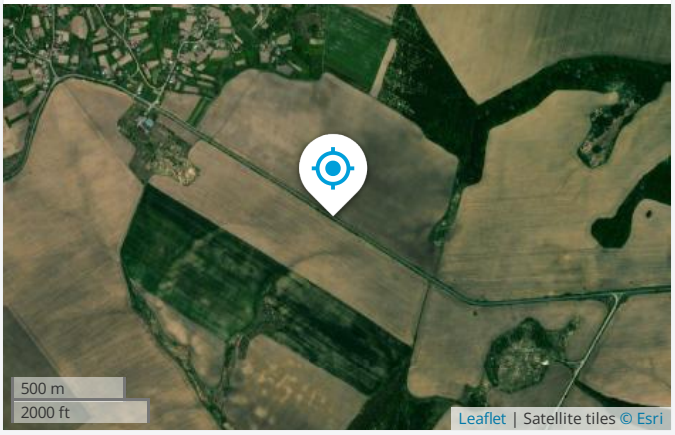
Map data

		Per year	
Specific photovoltaic power output	PVOUT specific	**1166.7**	kWh/kWp
Direct normal irradiation	DNI	**1102.1**	kWh/m^2
Global horizontal irradiation	GHI	**1186.4**	kWh/m^2
Diffuse horizontal irradiation	DIF	**579.8**	kWh/m^2
Global tilted irradiation at optimum angle	GTI opta	**1391.3**	kWh/m^2
Optimum tilt of PV modules	OPTA	**36 / 180**	°
Air temperature	TEMP	**8.3**	°C
Terrain elevation	ELE	**381**	m

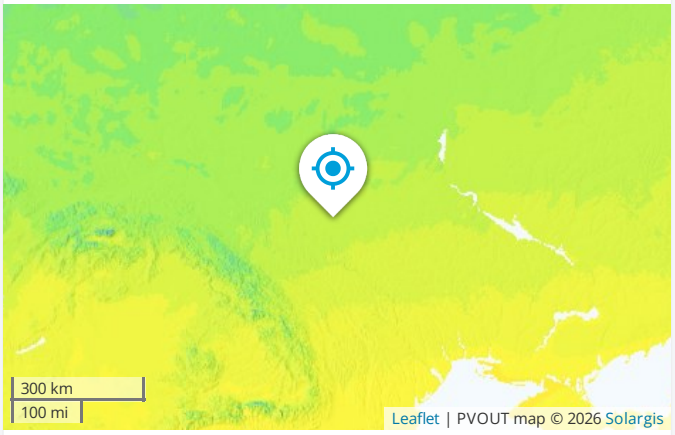
Horizon and sunpath



Map



PVOUT map



PVOUT: Long-term average of annual totals of PV power potential

kWh/kWp

600 800 1000 1200 1400 1600 1800 2000 2200 2400

PV ELECTRICITY AND SOLAR RADIATION

Annual averages

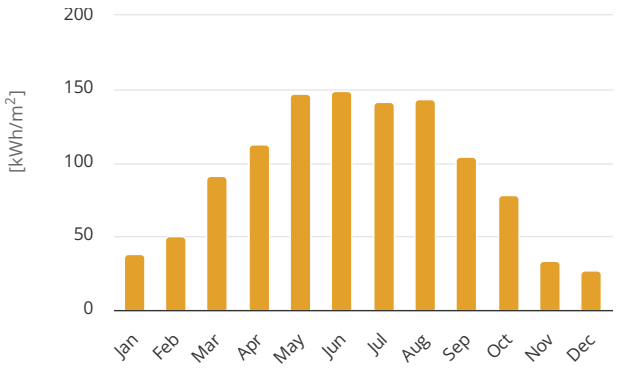
Direct normal irradiation

1115.4

kWh/m^2 per year

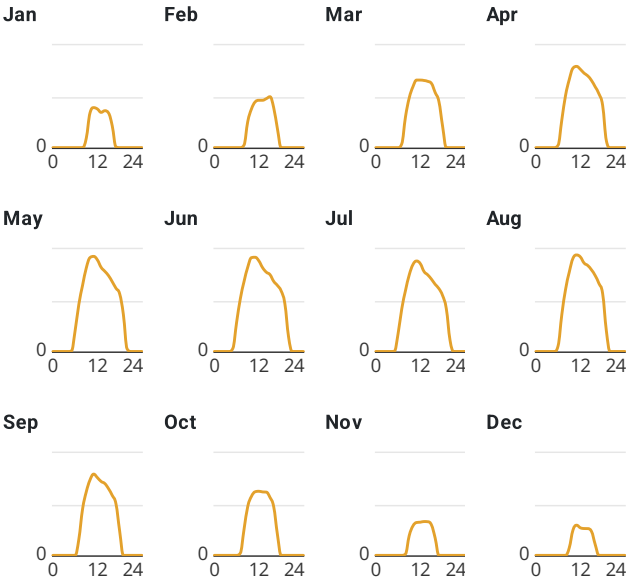
Monthly averages

Direct normal irradiation



Average hourly profiles

Direct normal irradiation [Wh/m^2]



UTC+03

Average hourly profiles

Direct normal irradiation [Wh/m^2]

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0 - 1												
1 - 2												
2 - 3												
3 - 4												
4 - 5												
5 - 6					2	16	1					
6 - 7				12	103	142	87	28				
7 - 8			19	136	231	257	209	181	79	11		
8 - 9		12	151	255	323	342	298	303	226	127	7	
9 - 10	46	127	242	332	408	412	374	388	311	239	96	37
10 - 11	169	189	297	388	459	459	424	455	368	288	144	123
11 - 12	195	223	330	397	465	460	442	472	397	311	161	147
12 - 13	189	231	330	383	447	443	429	462	380	313	162	135
13 - 14	172	231	328	364	411	410	391	432	361	310	165	131
14 - 15	180	239	324	351	392	388	374	420	351	309	164	131
15 - 16	169	249	314	328	371	376	353	399	326	283	149	117
16 - 17	106	195	269	297	341	343	328	371	293	237	84	53
17 - 18	4	92	226	263	309	323	307	332	252	102		
18 - 19			104	206	282	296	273	283	118			
19 - 20				34	180	234	209	101				
20 - 21					13	72	55					
21 - 22												
22 - 23												
23 - 24												
Sum	1,231	1,789	2,934	3,745	4,736	4,971	4,555	4,626	3,461	2,530	1,131	873

GLOSSARY

Acronym	Full name	Unit	Type of use
DIF	Diffuse horizontal irradiation	kWh/m², MJ/m²	Average yearly, monthly or daily sum of diffuse horizontal irradiation (© 2025 Solargis)
DNI	Direct normal irradiation	kWh/m², MJ/m²	Average yearly, monthly or daily sum of direct normal irradiation (© 2025 Solargis)
ELE	Terrain elevation	m, ft	Elevation of terrain surface above/below sea level, processed and integrated from SRTM-3 data and related data products (SRTM v4.1 © 2004 - 2025, CGIAR-CSI)
GHI	Global horizontal irradiation	kWh/m², MJ/m²	Average annual, monthly or daily sum of global horizontal irradiation (© 2025 Solargis)
GTI	Global tilted irradiation	kWh/m², MJ/m²	Average annual, monthly or daily sum of global tilted irradiation (© 2025 Solargis)
GTI_opta	Global tilted irradiation at optimum angle	kWh/m², MJ/m²	Average annual, monthly or daily sum of global tilted irradiation for PV modules fix-mounted at optimum angle (© 2025 Solargis)
OPTA	Optimum tilt of PV modules	°	Optimum tilt of fix-mounted PV modules facing towards Equator set for maximizing GTI input (© 2025 Solargis)
PVOUT_total	Total photovoltaic power output	kWh, MWh, GWh	Yearly and monthly average values of photovoltaic electricity (AC) delivered by the total installed capacity of a PV system (© 2025 Solargis)
PVOUT_specific	Specific photovoltaic power output	kWh/kWp	Yearly and monthly average values of photovoltaic electricity (AC) delivered by a PV system and normalized to 1 kWp of installed capacity (© 2025 Solargis)
TEMP	Air temperature	°C, °F	Average yearly, monthly and daily air temperature at 2 m above ground. Calculated from outputs of ERA5 model (© 2025 ECMWF, post-processed by Solargis)

ABOUT

This pdf report (the “Work”) is automatically generated from the Global Solar Atlas online app (https://globalsolaratlas.info/), prepared by Solargis under contract to The World Bank, based on a solar resource database that Solargis owns and maintains. It provides the estimated solar resource, air temperature data and potential solar power output for the selected location and input parameters of a photovoltaic (PV) power system.

Sources: Solar database and PV software © 2025 Solargis