

## Performance of Grid-connected PV

### PVGIS estimates of solar electricity generation

Location: 59°21'52" North, 24°3'1" East, Elevation: 22 m a.s.l.,  
Solar radiation database used: PVGIS-CMSAF

Nominal power of the PV system: 14.0 kW (crystalline silicon)

Estimated losses due to temperature and low irradiance: 10.2% (using local ambient temperature)

Estimated loss due to angular reflectance effects: 4.1%

Other losses (cables, inverter etc.): 5.0%

Combined PV system losses: 18.2%

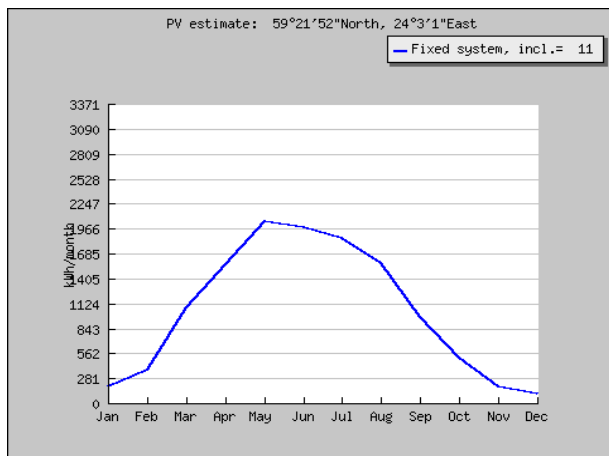
Fixed system: inclination=11 deg., orientation=0 deg.				
Month	Ed	Em	Hd	Hm
Jan	6.08	189	0.51	15.8
Feb	13.70	383	1.09	30.4
Mar	34.60	1070	2.79	86.4
Apr	52.30	1570	4.41	132
May	66.20	2050	5.86	182
Jun	65.90	1980	5.97	179
Jul	59.80	1860	5.51	171
Aug	50.80	1580	4.56	141
Sep	32.50	974	2.81	84.2
Oct	16.60	516	1.39	43.2
Nov	6.28	188	0.53	16.0
Dec	3.34	104	0.29	9.02
Year	34.10	1040	2.99	90.8
Total for year		12500		1090

Ed: Average daily electricity production from the given system (kWh)

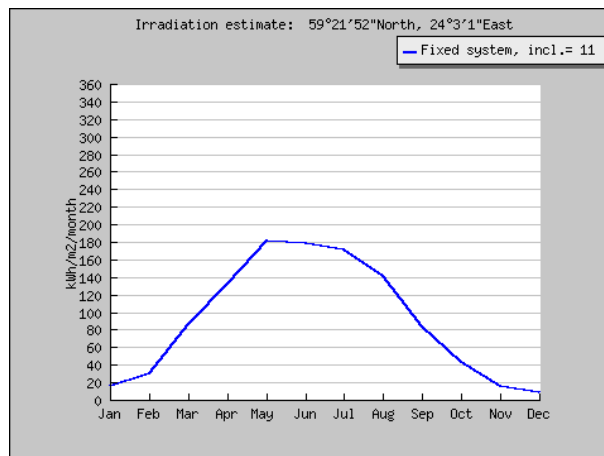
Em: Average monthly electricity production from the given system (kWh)

Hd: Average daily sum of global irradiation per square meter received by the modules of the given system (kWh/m2)

Hm: Average sum of global irradiation per square meter received by the modules of the given system (kWh/m2)



Monthly energy output from fixed-angle PV system



Monthly in-plane irradiation for fixed angle

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<http://re.jrc.ec.europa.eu/pvgis/>

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