

## Performance of Grid-connected PV

### PVGIS estimates of solar electricity generation

Location: 42°0'24" North, 24°52'33" East, Elevation: 237 m a.s.l.,

Nominal power of the PV system: 5.0 kW (crystalline silicon)

Estimated losses due to temperature: 9.7% (using local ambient temperature)

Estimated loss due to angular reflectance effects: 2.8%

Other losses (cables, inverter etc.): 14.0%

Combined PV system losses: 24.5%

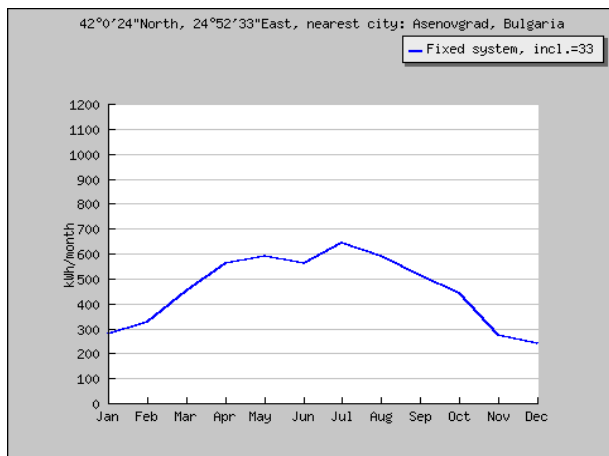
Fixed system: inclination=33 deg., orientation=15 deg.				
Month	Ed	Em	Hd	Hm
Jan	8.92	276	2.21	68.4
Feb	11.70	328	2.90	81.3
Mar	14.60	452	3.72	115
Apr	18.70	562	4.93	148
May	19.00	589	5.14	159
Jun	18.80	564	5.19	156
Jul	20.80	644	5.79	180
Aug	19.10	592	5.32	165
Sep	17.20	516	4.65	139
Oct	14.30	442	3.73	116
Nov	9.14	274	2.31	69.3
Dec	7.75	240	1.93	59.7
Year	15.00	457	3.99	121
Total for year		5480		1460

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

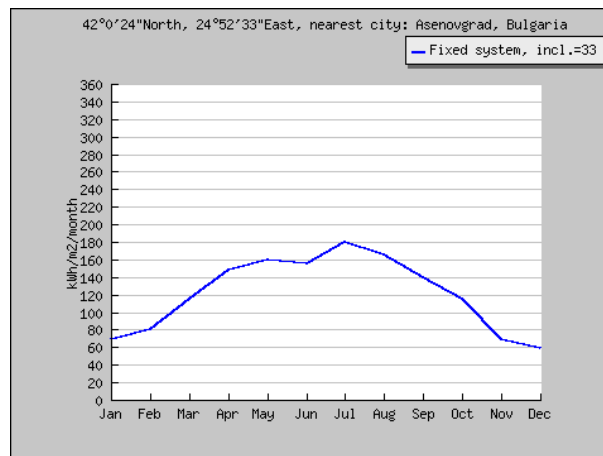
Em: Average monthly electricity production from the given system (kWh)

Hd: Average daily sum of global irradiation per square meter received by the modules of the given system (kWh/m<sup>2</sup>)

Hm: Average sum of global irradiation per square meter received by the modules of the given system (kWh/m<sup>2</sup>)



Monthly energy output from fixed-angle PV system



Monthly in-plane irradiation for fixed angle

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