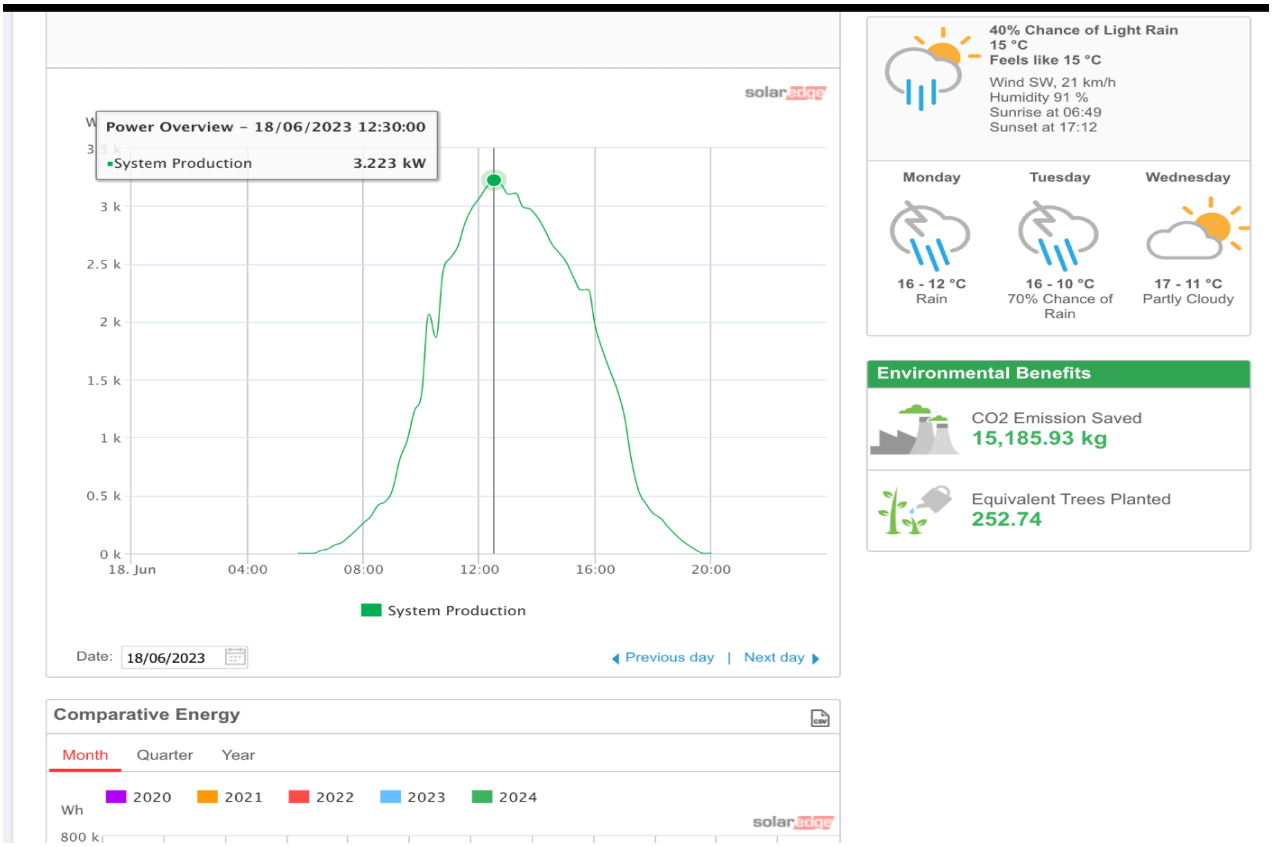
Empirical method of calculation of solar generation for a location.

Method 1- This method gives more accurate and consistent data since it takes care of all the factors like operational losses, efficiency, tilt angle etc.

Calculation of hourly per kW solar generation based on the data from solar portals

https://monitoringpublic.solaredge.com/solaredge-web/p/site/public?name=Davis%20-%20Selma&locale=en_GB#/dashboard

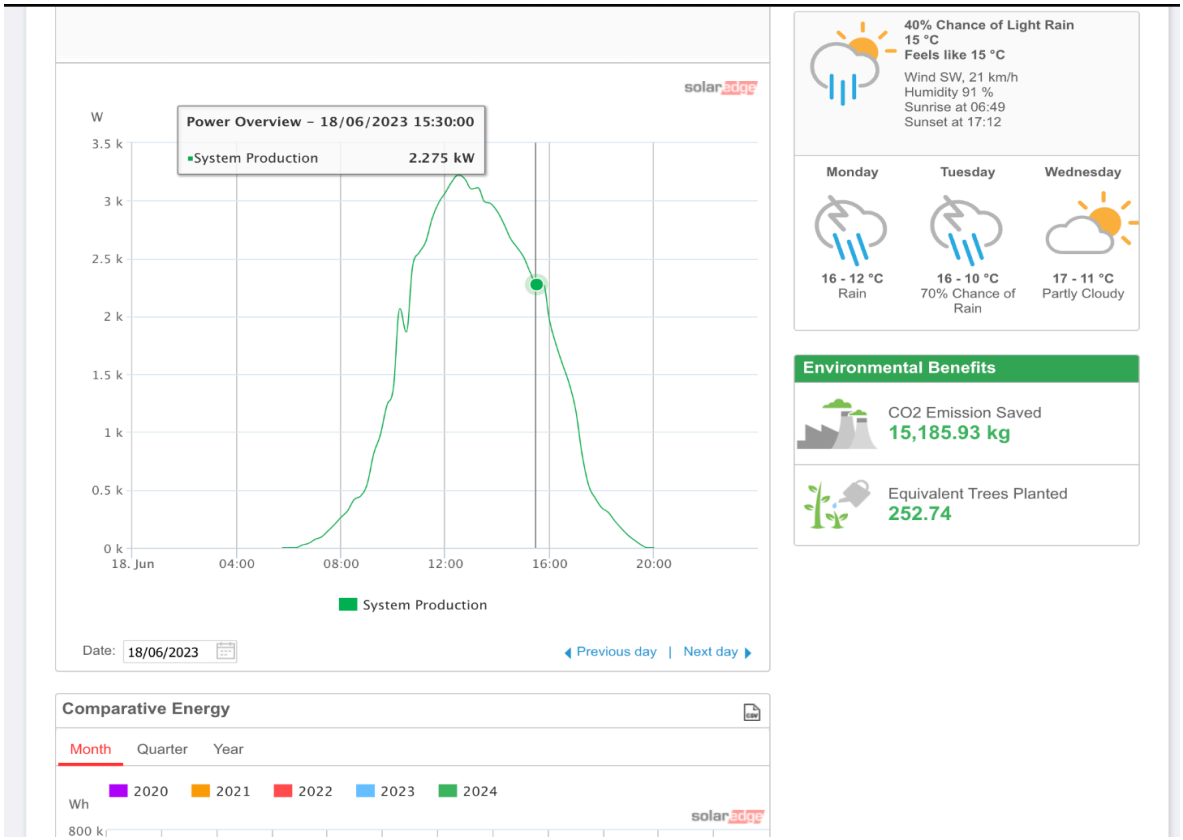
Based on the practical data from the site, per kW data is derived by dividing the yield by total capacity

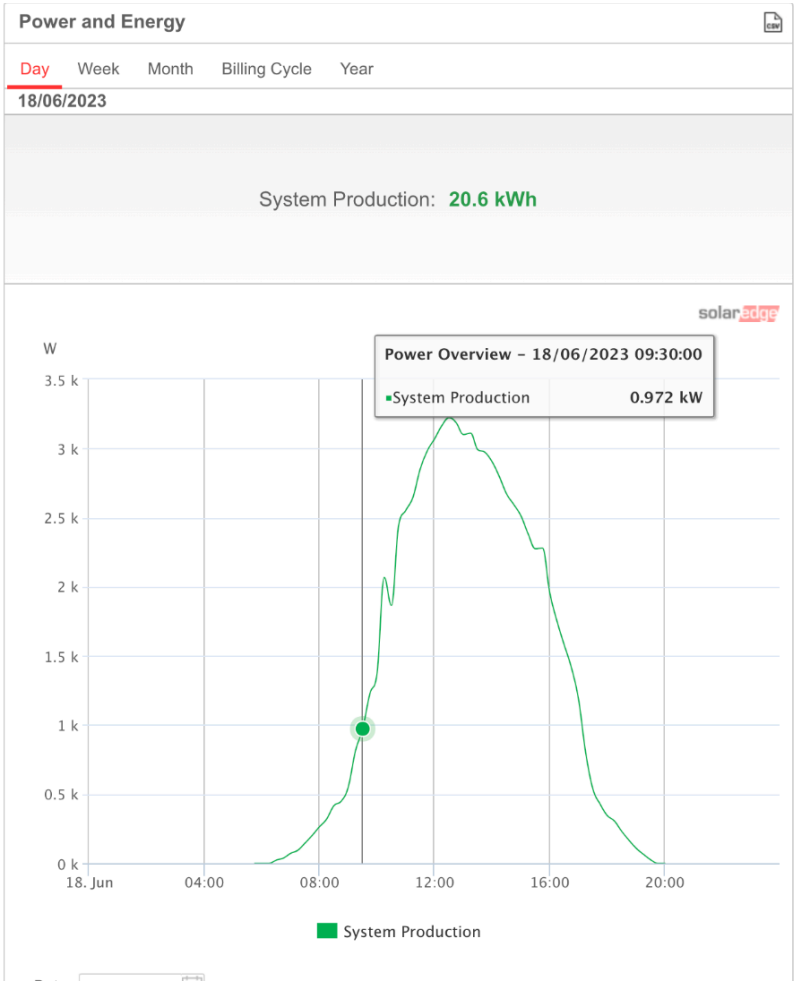


Here Plant Capacity = 4.5 kW
Generation 12-1 PM = 3.223 kW (from graph data)

`Per kW generation = 3223/4500 = 0.716kW or 716 Watts`

Total Generation = per kW X installed capacity





Name	Davis - Selma
Country	United States
Installed	07/05/2020
Last Updated	23/01/2024 13:12
Peak Power	4,5 kWp

40% Chance of Light Rain
15 °C
Feels like 15 °C
Wind SW, 21 km/h
Humidity 91 %
Sunrise at 06:49
Sunset at 17:12

Monday	Tuesday	Wednesday
16 - 12 °C	16 - 10 °C	17 - 11 °C
Rain	70% Chance of Rain	Partly Cloudy

Environmental Benefits

CO2 Emission Saved
15,185.93 kg

Equivalent Trees Planted
252.74

Time	Per kW Generation	Total Generation
June	**Watts**	
8:00-9:00	178	
9-10	234	
10-11	378	
11-12	612	
12-1	716	
1-2	597	
2-3	426	
3-4	233	

4-5	198	
5-6	145	