

The following is a list describing the columns that may appear in your meteo_data.csv file:

1. **Global Horizontal Irradiance (GHI, W/m2):** The total irradiance received on a horizontal surface. It is the sum of the horizontal components of direct (beam) and diffuse irradiance.
2. **Direct (Beam) Horizontal Irradiance (EBH, W/m2):** The horizontal component of Direct Normal Irradiance.
3. **Direct Normal Irradiance (DNI, W/m2):** Solar irradiance arriving in a direct line from the sun as measured on a surface held perpendicular to the sun.
4. **Diffuse Horizontal Irradiance (DIF, DHI, W/m2):** The horizontal component of diffuse irradiance (irradiance that is scattered by the atmosphere).
5. **Global Tilted Irradiance (GTI, W/m2):** Total irradiance received on a surface with defined tilt and azimuth (sum of direct, diffuse and reflected components), fixed or tracking.
6. **Clearsky_(DHI/DNI/GHI/GTI):** The respective values if there are no clouds.
7. **Temperature (TEMP AIR_TEMP, TAMB, Celsius):** The temperature of the air in the given location (10 meters above ground level).
8. **Solar Zenith (degrees):** The angle between a line perpendicular to the earth's surface and the sun (90 deg = sunrise and sunset; 0 deg = sun directly overhead).
9. **Solar Azimuth (degrees):** The angle between a line pointing due north to the sun's current position in the sky. Negative to the East. Positive to the West. 0 at due North.
10. **Albedo (0 - 1):** The average daytime surface reflectivity of visible light, expressed as a fractional value between 0 and 1. 0 represents complete absorption. 1 represents complete reflection. This is an interpolated daily average value, therefore does not capture any diurnal angular dependence of reflectivity.
11. **Cloud Opacity (%):** The measurement of how opaque the clouds are to solar radiation in the given location.
12. **Dewpoint (DWPT, Celsius):** The air dewpoint temperature (2 meters above ground level).
13. **Relative Humidity (RH, %):** The air relative humidity (2 meters above ground level).
14. **Surface Pressure (AP, hPa):** The air pressure at ground level.
15. **Wind Speed (WS, m/s):** The wind speed (10 meters above ground level).
16. **Wind Direction (WD, degrees):** The wind direction (10 meters above ground level). This is the meteorological convention. 0 is a northerly (from the north); 90 is an easterly (from the east); 180 is a southerly (from the south); 270 is a westerly (from the west)
17. **Precipitable Water (PWAT, kg/m2):** The total column precipitable water content.
18. **Precipitation Rate (mm/h):** Precipitation rate in millimetres per hour. An estimate of the average precipitation rate during the selected period, expressed in millimetres per hour - not an accumulated value.
19. **Snow depth (SWDE, cm):** The snow depth liquid-water-equivalent.
20. **Snow Soiling Rooftop (%):** Loss in rooftop PV module (DC) production loss due to snow soiling. 0% means no snow soiling losses. 100% means snow is fully covering all modules. Soiling values are estimated using Solcast snowfall, irradiance and temperature data, following the method of Ryberg and Freeman (NREL, 2017), with Solcast proprietary extensions.
21. **Snow Soiling Ground (%):** Loss in ground mounted PV module (DC) production loss due to snow soiling. 0% means no snow soiling losses. 100% means snow is fully covering all modules. Soiling values are estimated using Solcast snowfall, irradiance and temperature data, following the method of Ryberg and Freeman (NREL, 2017), with Solcast proprietary extensions. Snow clears faster in the Utility parameter, compared to the Rooftop parameter.
22. **Snow Water Equivalent (cm):** Snow water equivalent is the snow depth liquid equivalent.