Why measure solar irradiance?

The electrical output will vary significantly with changes in the level of in-plane irradiance.

Solar PV panel manufacturers quote the electrical output at standard test conditions (STC) with an irradiance level of 1000W/m2. Therefore, when commissioning a PV system, it is necessary to measure the level of irradiance at the same time as testing its electrical output, to know whether it is working to its potential under the existing irradiance levels. If the electrical output is different from the manufacturers' quoted values, it must be determined whether this is due to a fault in the PV installation, or simply because irradiance was different from STC.

Simultaneous measurement and recording of irradiance, open circuit voltage (Voc) and short circuit current (Isc) is required for the PV Array Test Report for IEC 62446.

If you require more help, please contact us at https://www.seaward.com/us/enquire/.