



Moving Towards World-Class Quality in Photovoltaics

What is Photovoltaics (PV)?

Photovoltaics (PV) covers the conversion of light into electricity using semiconducting materials that exhibit what is termed the 'photovoltaic effect', a phenomenon that is a subject of study in physics, photochemistry, and electrochemistry.

It is best known as a method for generating electric power by using solar cells to convert energy from the sun into a flow of electrons. Photons of light that excite electrons into a higher state of energy, will act as charge carriers for an electric current.

Certification Scheme by SIRIM QAS International

In Malaysia, companies that are involved in the manufacturing, trading or importing of photovoltaic (PV) modules can seek to ascertain the reliability and safety of their products through a Scheme managed by SIRIM. SIRIM QAS International is the provider of this scheme for the certification of crystalline silicon terrestrial PV modules and thin-film terrestrial PV modules specifically designed for application in terrestrial PV power generation systems.

The PHOTOVOLTAIC (PV) MODULE CERTIFICATION SCHEME is aimed to ascertain the reliability and safety of Photovoltaic (PV) modules to support the wide application and usage of PV system in the field. This certification will be a boost to end-user confidence and it is a voluntary scheme that is applicable to manufacturers, trading companies or importers, be it local or foreign companies.

Why is Having a World-class Testing Agency So Important in Malaysia?

Malaysia is currently ranked No. 2 in the world for the manufacture of solar Photovoltaic (PV) panels after China. This is why the Malaysian government saw the need to develop technical and conformity assessment capabilities to cater to the Solar PV industry needs for Malaysia and the ASEAN region.

The Ministry of International Trade & Industry (MITI) has placed the task of initiating and pushing forth the development for the photovoltaic industry in the country in the hands of the Malaysian Industry-Government Group for High Technology (MIGHT).

Malaysia's Own Regional Testing Hub

SIRIM QAS is the appointed agency by MIGHT to set up a Solar Testing, Certification and Training programme in the Regional Hub. The former is to develop a comprehensive testing facility equipped with the latest technology in the field to offer independent assurance of product compliance with national as well as international standards.

In the high-tech centre, PV Module testing services ensure reliability and safety of PV modules made by the producers here and in the region. The standard which the testing must adhere to is the latest IEC 61215 covering both crystalline silicon and thin-film terrestrial PV module designs.

This standard covers the safety and performance testing of a PV module with the objective to determine the electrical and thermal characteristics of the module, whilst checking its capability in the outdoor environment.

This facility will help local companies who are either in the business of manufacturing, trading or importing to produce and sell good quality of PV modules to buyers.

Apart from maintaining the highest quality, this effort aims to curb the 'dumping' of sub-standard Solar PV products in the country.

This move also augurs well with the government's efforts to push the effort to create more Renewable Energy technologies and as a whole, increase Green Technology practices in Malaysia enroute to the aspiration of becoming developed by 2020.