Press release

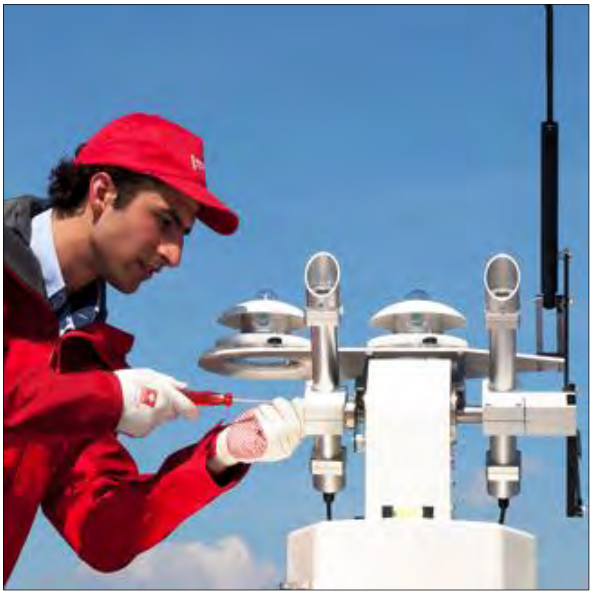
NIWE India selects Geonica and its Indian partner SGS Weather for solar resource assessment network (Phase-1, Phase-2 and MEDA)

Geónica S.A. (Spain) and our Indian Distributor, SGS Weather, are chosen to supply measuring instruments and to install, commission and maintain a network of >124 (phase-1, 2 and MEDA) remote measurement stations for solar radiation resource assessment in India.

The network will be used by **NIWE National Institute of Wind Energy Technology**, (formely C-WET) an autonomous R&D institution under the India Ministry of New and Renewable Energy.

The purpose of the network is to generate the **"solar map"** of India. Solar maps, showing real data of yearly solar radiation levels, are used for design of solar power plants. Detailed historical data series are made available by NIWE as a commercial service.

The network continuously monitors and stores nationwide solar radiation and weather parameters and communicates these to a Data Receiving Center (DRC) with redundancy located at C-WET Headquarters in Chennai. Each measurement station is equipped with high accuracy meteorological sensors. More specifically, every station includes a **METEODATA Data Logger / Controller,** a **SunTracker 3000** and several solar radiation sensors, such as a **Pyrheliometer** mounted on the solar tracker, and two **Pyranometers** (one shaded for the measurement of the Diffuse Radiation) . Data is transferred via GPRS cellular network to the Data Receiving Center for analysis and final archiving. In Phase-2 there are also four "Advanced" Stations measuring Albedo Irradiance, Far Infrared Irradiance (Pyrgeometer) and AOD. Real-time data is also available in Internet by means of **GEONICA WEBTRANS *Ubiquitas*** Internet Platform.



Key to the selection of suppliers over competitors was a combination of factors:

- Instruments with excellent technical specifications. These include a **SunTracker 3000** working at very low power with integrated on-board datalogging / transmission capabilities and real time data quality assurance by **Geonica** and solar sensors with excellent temperature dependence and zero offset.

- The proven record of SGS Weather in installation as well as after sales service and maintenance.

- A competitive price level.

Installation and commissioning of the Phase-2 and MEDA was carried out on Sep. 2013-Feb.2014. Phase-1 was completed on Nov. 2011

Model SunTracker-3000 with shadow arm and disc, two Pyrheliometers and two Pyranometers

Each one of the Stations of Phase-1 Phase-2 (red points in the map) is measuring:

- **Global Horizontal Irradiance (GHI)**
- **Direct Normal Irradiance (DNI)**
- **Diffuse Horizontal Irradiance (DHI)**
- **Wind Speed and Direction**
- **Ambient Temperature and Relative Humidity**
- **Atmospheric Pressure**

Each one of the 4 “Advanced” Radiation Stations (blue points in the map) is measuring:

- **Albedo Irradiance (Albedometer)**
- **Far Infrared Radiation (Pyrgeometer)**
- **AOD (Sunphotometer)**

NIWE, Indian Solar Map, Ground Based Stations Network (from GEONICA) (Phase 1, 2 and MEDA)