CG APPLICATIONS

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Application Note :	**August 4th 2006**
Market involved :	**Electricity, Renewable Energy**
Product :	**WM14DINAV53HR2S1AX03**
Customer :	**OEMs,Panel Builders**
Subject :	**Photovoltaic generation plants**

CUSTOMER ISSUE :

A distributor of photovoltaic panels and inverters (used to convert the DC voltage from the solar cells into AC power supply for domestic users or for grid connection) supplies also "turn-key" solutions to the final user, installing both the cells, the inverter and the relevant wiring.

In such an application it is very important to know the produced energy and the total hours during which this energy is generated.

OUR SOLUTION:

The special analyser WM14-DINAV53HR2S1AX03 has been integrated in the solar switch-gear, in order to control the main parameters, to measure the energy and the solar generation time (the hours during which the plant is generating power).

On the other hand both reactive power and reactive energy are not required and could confuse the user so they can be hidden according to a proper selection.

Also the start-up power can be selected in the programming mode.

ACHIEVED BENEFITS:

- The specific features for the solar application has been required by the manufacturer of these plants
- The energy metering and the hour counting are according to the actual solar production
- The special WM14 has two digital outputs to be used as alarms (to check the proper working of the protections) and a serial port to retransmit all the information to a supervision system or to a HMI. As an alternative the pulse output can be used for energy retransmission in order to show the generated power in a remote display, as it happens very often in public buildings.