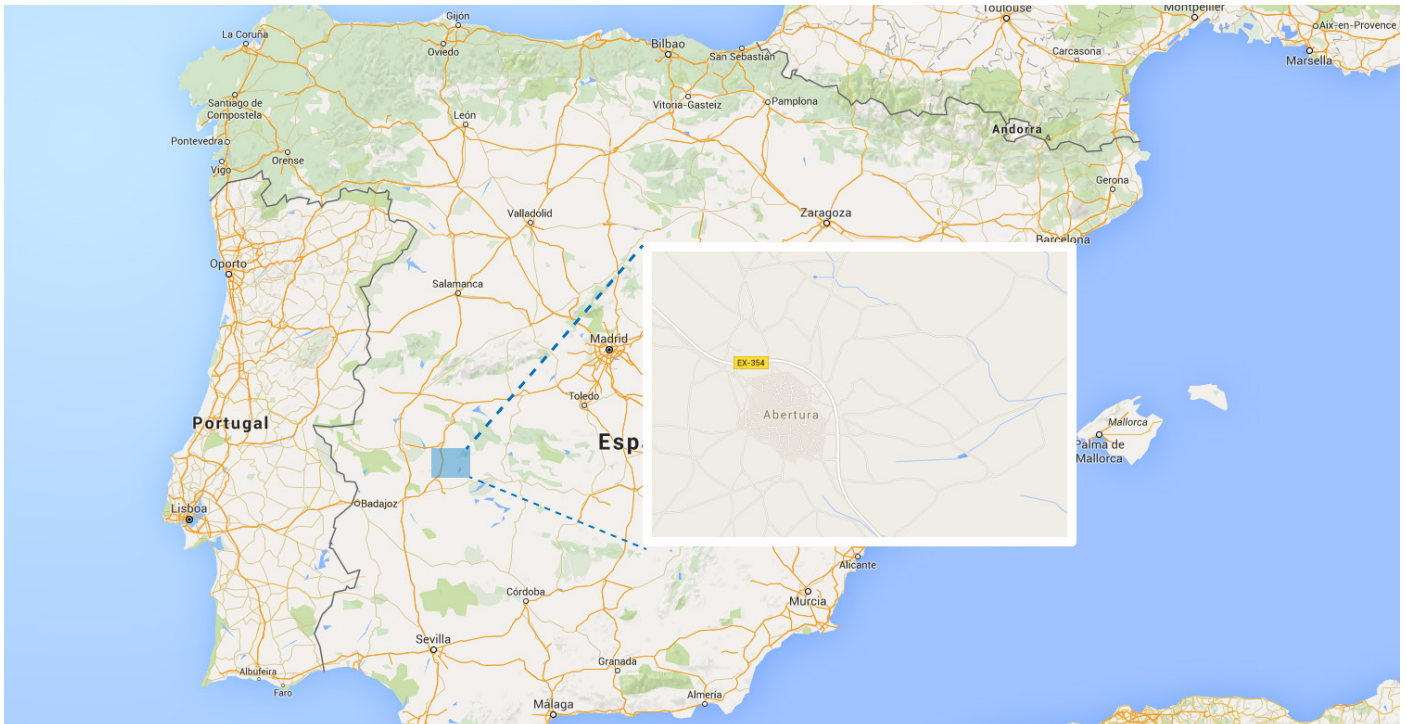


CASE STUDY 9

Photovoltaic solar farm, Spain 2008 (world's biggest)



Customer: Iberdrola

In the year 2008 Kintech Engineering was contracted to install what was to become our first meteorological met towers for controlling 6 separate photovoltaic solar farms for Iberdrola. Some of them with fixed structures and others mounted on dual axis sun trackers. The biggest of the solar farms (located in Abertura, Caceres) with a 20 MW was at that time the world's biggest solar farm with double axis sun trackers.

Each wind farm was equipped with 3 separate met towers (a total of 18 masts) with each tower being equipped with GSM communication for remote access (both for real time monitoring and for automatic download). All the masts were additionally connected to the SCADA system for operators to keep track of performance.

Measurement Equipment

All 18 met towers were equipped with 2 Pyranometers (with a secondary standard classification - one installed horizontally and another one inclined together with the calibrated cells). At least one of the 6 met towers on each solar farm was furthermore equipped with a shadow ring for measuring the diffuse radiation. Temperature, relative humidity, rain fall, wind speed and wind direction was measured as well.

Power supply

The power supply system consisted of two separate systems. One connected directly to the local power grid and a separate backup system based on small solar panels and battery backup in case the local grid should fail.

Location and still active

The solar plants are all located in the South-West of Spain.
These meteorological met towers are still active today (17.03.2016).

CASE STUDY 9 | PHOTOVOLTAIC SOLAR FARM, SPAIN 2008 (WORLD'S BIGGEST)



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