

## Case Study 5 - Idelect Ltda: Project for Wind and Solar Measurement Campaign in Colombia

Colombia's significant capacity of renewable energy, especially wind and solar power, is mainly unexploited. Currently hydropower is a very important national energy source. In order to complement the seasonal variations in hydropower, wind and solar become more important.

The wind regime in Colombia is among the best in South America. The coastal regions in the north of Colombia have been classified with class 7 winds. The only other region in Latin America with such high wind power classification is the Patagonia region of Chile and Argentina.

Because of its location in the equatorial zone Colombia has tremendous solar power resources. Solar systems are very suitable for installations in rural areas where energy demands are widely spread and grid connections are often expensive.

The project with INSTITUTO DE PLANIFICACIÓN Y PROMOCION DE SOLUCIONES ENERGÉTICAS (IPSE) is the first measurement campaign for Ammonit and its local partner Idelect Ltda in Colombia. The project consists of seven met mast installations: one met mast (30 meters) for wind and solar measurement and six met masts (10 meters) for solar measurement. The installation started at the beginning of 2011 with met masts in Nazareth, Isla Fuerte y Titumate and Puerto Estrella. Due to topographic and climate conditions the measurement instruments must be robust, reliable and require little service. Ammonit offers suitable sensors and equipment to meet these requirements. The wind and solar measuring systems are equipped with:

- Ammonit Data Logger METEO-32
- Thies wind sensors
- Kipp & Zonen pyranometer
- Vaisala pressure sensors
- Galltec humidity temperature sensors

In order to monitor the measurement data IPSE uses Ammonitor (Ammonit Online Report) to archive, monitor and visualise the measurement data gathered by the installed Ammonit data loggers.

IPSE can easily set up filters to observe the measurements, i.e. minimum temperature or minimum wind speed. If any filtering condition applies, Ammonitor will automatically send an email to IPSE. This way reliable measurements are guaranteed and in case of any emerging problem the operator can quickly react. Once the measurement campaign is completed the collected data will be analysed in feasibility studies.

[www.idelect.net](http://www.idelect.net)

