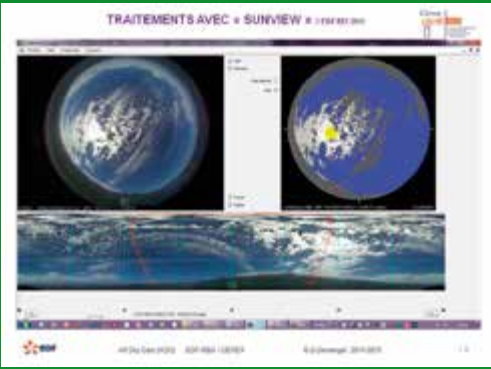




PHOTOVOLTAICS: TRANSFORMED WEATHER TEST



Set up on Reunion Island, the first weather station designed to anticipate photovoltaic production has measured up to its promises. Remotely controlled from 9,000 km away, the station

acquires measurements that correlate weather and power generation. Give the speed at which it has developed, the photovoltaic sector occupies a growing position in power generation in French Overseas Departments and Territories (DOM-TOM).

However, similar to all intermittent energy sources, it is vital to anticipate, as accurately as possible, the instances where recourse to photovoltaic production will or will not be activated. In the case of solar energy, understanding very short-term weather conditions (ranging anywhere between 10 minutes and 1 hour) constitutes a crucial step. To this effect, an experimental weather station was set up on Reunion Island by CEREAs (Atmospheric Environment Teaching and Research Center), the joint laboratory of Ponts-ParisTech and EDF R&D. Equipped with ray detectors and cameras, it is located on the photovoltaic farm of EDF Energies Nouvelles (EDF EN) in Sainte-Rose. The goal is two-fold. On the one hand, it acquires various measurements aimed at building a weather database so as to understand the relationship between photovoltaic production and cloud coverage at an instant. On the other hand, it takes a closer look at the feasibility of anticipating this production on the basis of gathered measurement and images.

