



# Solar plant

## Protection from robbery



**EVITECH's Jaguar® video analytics solution ensures safe monitoring of solar plants in southern Europe.**

**Issue** : Solar plants in southern Europe are medium-sized electricity production units consisting of solar capture and transformation cell panels, interconnected to electrical wiring and voltage & power transformation systems. Most of these sites are uninhabited. However, solar panels, copper, and other electrical equipment are of great value and targets of robbery. Even if robbery often only concerns one part of the plant system, the whole unit is stopped and electrical production is lost for weeks.

**Solution** : Solar electricity production turns solar light into electricity. Lighting a solar plant at night would be a paradox since it would consume electricity produced during the day for protecting the unit at night. Thus, thermal cameras, whose electrical power consumption is around 5 W per camera, are usually chosen for site protection. Cameras are installed around the plant site in order to ensure a safety round path. Every visitor of the site, through all the possible legal accesses as well as every meter of perimeter fence is under surveillance of a camera, which is monitored by Jaguar. Every camera watches the next camera so an attack to the camera would be detected from the camera behind. Due to the exceptional sensitivity of Jaguar, cameras can be used at very long ranges : Jaguar was qualified for 250 meters detection of human targets from a thermal 20° FOV camera. Such distances make it possible to fulfill unit perimeter coverage as well as cross camera surveillance with 4-8 cameras monitored by only one Jaguar detector.

Because the site is uninhabited, alarms are reported by GSM or ADSL phone network to a remote surveillance company, where a security officer receives one event per alarm with the corresponding video sequence, and can then confirm the intrusion, or take remote control on a PTZ dome in the site to check more carefully what is going on.

**Tests** : tests are handled by the security officers who simulate intruders walking around the walls, the gates, and running/climbing on the fences at different speeds.

**Remarks** : Thermal cameras with video analytics from Jaguar can detect and qualify a human or animal intrusion. For later police identification purpose, a light projector can be used with the dome so the security officer can get visible identification images of the intruders making it possible to recognize clothing and faces.

**About Evitech** : Created in 2005 in France from a military R&D project, the company has rapidly developed with an average 200% CA progression rate. From a turnover of 500 K€ in 2008, the company targets a turnover of 1 M€ for 2009. EVITECH's software products address the fields of smart video surveillance for global security.

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