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Success Stories

VEMS security efficiency in the making: a successful case for Arteco at the Kathu solar Farm

Located in the Northern Cape and managing up to 75MW daily of solar energy, the Renewable Energy Investments of South Africa (Pty) Ltd (REISA) solar plant situated 20 kilometers outside of Kathu and active nationally since February of 2014 needed to cover 6 kilometers of perimeter along with adjoining sub station, gates and operational buildings.

According to Quentin Clarke, Managing Partner of Complete Security Services and System Integrator, the Kathu solar farm is a tracking type farm and is one of the first of its kind to be commissioned in South Africa providing power distribution to the national grid. It therefore required a robust perimeter intrusion detection system (PIDS) and a flexible and reliable VMS to ensure complete security protection.

Mr. Clarke added that his company Complete Security Systems, a level 4 BEE company from Muldersdrift, has been active in the security market for 21 years: "We specialise in integrated solutions for our customers and conduct full turnkey security solutions with in house resources. We have a staff of approximately 40 divided between technical cabling and fitting to senior techicians and programmers or commissioning engineers and the associated administration staff." He went on to add that they are not product bound and generally find installations and commission the best product that suits the clients requirements and are therefore trained and certified on several different brand security products.

Their independence and knowledge of the industry were important factors in determining their choice for Arteco as the VMS provider. Originally, the project was commissioned to CIAS, a leading perimeter protection company and partner of Arteco. The VMS solution was provided by one of the leading VMS producers worldwide.

The client's requirement was for a single operating platform with a map display interface that would allow for real time monitoring of all CCTV camera analytic alarms, all microwave barriers and all alarm systems. The system also needed to control 36 LED light fittings on the perimeter that were to be used as "surprise lights" that would light up when the microwave barriers were triggered.

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However, the integration of the competitor's solution with CIAS was only properly functional when a single output from IB system IP was used to send events to their VMS and would only work occasionally when more than one was used.

Mr Clarke commented: "This issue as well as the cost of adding analytics that were effective to (the competitor) were the major issues in requiring the change to Arteco and the added benefits were that Arteco offered a far superior interactive map to the system".

Moreover, he was quite satisfied with the service and support received from Arteco and heartily recommend Arteco and CIAS and to use their products in future projects.

Below is a brief recap of the technology used by Arteco and CIAS to implement the PIDS:

1. 140 Arteco channels
2. 45 Ermo 480X barriers (42 x 250m and 3 x 150m)
3. 1 Arteco Everywhere Smart I/O 4+4I/O
4. The perimeter is approximately 6 km in length with 113 cameras on the perimeter and the balance on an adjoining sub station, gates and operational buildings
5. 75 MW peak solar energy distribution (this is the maximum regulated by SA law for a solar farm)