

Overview

In 2019. Data Express Company LLC took an active part in the construction of the Pokrovskaya Solar Power Plant with a capacity of 240 MW and an area of 437 hectares, located on the territory of the Dnipropetrovsk region. This is the largest solar power plant in Ukraine and the second largest in Europe. The specialists of Data Express LLC planned and carried out the design, the construction and the installation and put into operation the security systems of the Pokrovskaya SES.

- FiberGuard perimeter security system based on fiber-optic cable which was installed on the fence (the length of the section controlled by the system was 12 km.). The solution design, the installation and setup of FiberGuard was provided by NBG.
- VDG perimeter and internal video surveillance system (72 video cameras including 37 robotic ones);
- · access control system Keyprocessor
- · Satel security alarm system
- Commend intercom system

Challenge

As part of the implementation of the security systems project, the integration of the perimeter security system, the perimeter video surveillance system and the perimeter lighting complex was carried out, which made it possible to implement the simultaneous response of security systems (perimeter security + video surveillance + lighting) to an event (intrusion) with a security alert already 5 seconds after it offensive and indicating the place of invasion with an accuracy of 2 meters.

Solution

FiberGuard is deployed for real-time, precise detection and location of perimeter security threats on the fence. The core technology acts as a continuous microphone designed to "monitor" over a quasi-DC to 500 kHz bandwidth, to very distinctive frequencies and energy profiles generated by intrusion events, while discriminating between normal and ambient conditions.

FiberGuard was chosen as It Is the most cost-effective, high-performance solution for protection of long perimeters of critical infrastructure. Alarms are detected and located in real-time within +- 5 m over the entire perimeter length. The system is completely immune to environment conditions like lightning or EMI (electromagnetic interference) as it requires no electronics in the field.