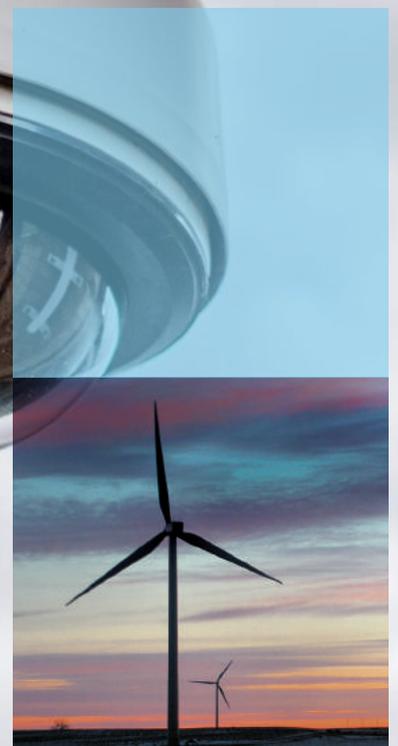# Electrical Generation

As construction continues to grow, with an ever increasing number of new commercial and residential development schemes in progress, demands on the power network have reached a critical point. So much so, that the network is unable to handle the increased capacity requirements for new demand on electricity.

THE CHALLENGE

To overcome this, planning applications and planning permissions are increasingly only being granted if an alternative power generation source is provided, driving an increase in planning applications being submitted which incorporate a boiler house.

These sub-terrain small power stations have the ability to provide localised electricity to new developments, producing power and selling the resulting heat by-product to the local area. However, these boiler houses are often in remote locations, such as wind farm installations, which are difficult to access and unmanned. These high tech power generation stations require a high level of security to protect against vandalism, trespass and threat but without personnel on-site 24/7, monitoring and detection requires a more high-tech solution.

THE SPECIFICATION

Secure One were able to provide a bespoke, enterprise version of access control and CCTV software which has the capability to protect multiple sites with just one system. This digital solution can provide high levels of flexibility, with the client having the option to use the software directly, whereby they manage the remote monitoring themselves; or through our appointed specialist third party supplier.

A further feature of this tailored solution is the ability for the CCTV system to be an intelligent, self-learning system. Solar farms are typically placed in farmland with sheep grazing, leading to problems with monitoring and detection with many thermal detection systems unable to differentiate between sheep and humans. Our system, using Avigilon cameras, with self-learning video analytics can cater for standard high resolution cameras and thermal cameras, with the thermal cameras offering the ability to operate beyond the visible spectrum. Through Avigilon self-learning video analytics, operators receive notifications of detected activity that may require further investigation, helping them to take decisive action when needed. These advance pattern-based analytics are able to accurately recognise the movements and thermal signatures of specific threats, whilst ignoring motion not relevant to a scene.

THE OUTCOME

Remote, unmanned power locations can now be effectively monitored and protected without the need for personnel on-site 24/7. With safety being of paramount importance, an access control system provides a comprehensive audit trail of who has been into restricted sites and when, with only authorised personnel granted access. This removes the considerable risk of a traditional lock and key entry system, with the potential of keys to be lost or handed to unauthorised personnel.

All CCTV and intruder alarm data is sent back to the clients' own network and backed up at cloud hosted data centres. Providing 360° security and protection.

A GROWING NEED FOR INTELLIGENT SOLUTIONS.

With planning permission requirements on power generation for new commercial and residential developments set to remain in force for the foreseeable future, we anticipate a growing need for an intelligent solution to protect these remote, unmanned power stations with 40 sites already currently protected by Secure One.