

Construction Site – ANPR with no power or comms.

Two challenging problems, one elegant green solution.



Location:
Oxfordshire Countryside

Industry Segment:
Construction

Application:
Vehicle access compliance
with no mains power.

Technology:
A.N.P.R., green wind and solar.



The Problem

When one of our clients was ready to commence construction of a new Energy from Waste facility, they were faced with a major hurdle.

The site was just a field at the side of a typical A road in the middle of open countryside. Not the place you would typically consider deploying ANPR cameras. But planning dictated that before any construction could begin, including that of the entrance road, ANPR needed to be established to monitor the movement of traffic from site.

The council had imposed strict rules relating the direction vehicles approached site (avoiding a local village) and further restrictions on the days and times lorries arrived or left the site.

There was no source of mains power, not even from street lighting (because there was none), and no communications (BT or mobile 3G).

The Solution

Herongrange partnered with a major player in the ANPR marketplace to provide the ANPR cameras. But without power or comms being available for at least 6 months, Herongrange had to find another way.

After some extensive testing and trials, we developed an outdoor cabinet which contained batteries and charging equipment sufficient for providing enough power to comfortably run the camera by collecting energy from a wind generator and two solar cells.

The ANPR cameras were also configured to close down during the evening after the site gates were closed and automatically power on before site re-opened.

Herongrange provided weekly visits to monitor the performance of both the ANPR cameras and the green energy supply. The wind and solar solution generated adequate power even on dull or calm days.



Herongrange deployed a feature-rich hardware and software ANPR package, along with a bespoke solution to the lack of mains power and communications infrastructure.

Since it was also impossible to provide a data connection, not even by using 3G, Herongrange also regularly visited to collect ANPR data from the cameras and provide retrospective reporting of traffic violations, and comfort data to the council and local residents.

The ANPR cameras use pulsed infra-red to block out all but the number plate being read. Sunshine, fog or dazzling headlights have no effect on the cameras ability to read number plates, even at speed or obscure angles.

Benefits

Not only were our client allowed to commence construction, they were safe in the confidence that they were able to meet their traffic monitoring obligations.

Herongrange managed the ANPR camera's green power and data collection with visits until a mains supply became available. At this point, we switched the cameras to mains with the option of battery back-up. With the additional power available and now the existence of site offices, we could also install a long-range wireless link between the cameras and the site office.

Shortly after which, ADSL became available onsite and the cameras are now remotely managed and archived by Herongrange some 40 miles away.

The ANPR software allows reporting of vehicle registration along with date, time and directional information. The data can be searched, filtered and exported in many formats allowing flexible management reporting and enforcement.

