

## **COPPER THIEF ARRESTED –**

### ***TRUenergy averts Copper Theft using Videofied***

Copper theft is a growing problem to energy utilities infrastructure across Australia, in turn threatening power outages and risk to workers and would be copper thieves attempting to steal copper from live power stations. Commonly attributed to the high value of copper, and the fluidity of the precious metal to be converted to cash, thieves are becoming increasingly brazen to steal copper earthing conductors from live electricity power stations.

According to the ASX Copper prices have risen about 150% since 2009 to \$7500 per tonne in Australia, and this can be attributed to the increasing demands of China, India and other increasingly industrialized countries.

TRUenergy Yallourn Power Station and Open Cut Mine located in the Latrobe Valley about 150 kilometers east of Melbourne is no stranger to copper theft related issues. The Yallourn TRUenergy site supplies approximately 22% of Victoria's electricity and 8% nationally. Every hour, two thousand four hundred tonnes of brown coal are used to boil water into superheated steam to drive the four turbine generators in turn providing up to 1480 megawatts of electricity.

TRUenergy Yallourn Estate Services Alliance Manager, Jason Shields is responsible for the security of this critical infrastructure and has used typically random mobile security patrols and CCTV to preserve the security of the Yallourn site.

In late 2011, Jason experienced a number of repeat copper thefts at the Yallourn site and whilst these incidents amounted to only a small amount of copper materials, the real cost of downtime and labor was substantial. Due to the remoteness of the site and the inability to identify or apprehend offenders, an alternate means of security was considered to complement random mobile security patrols.

It was determined that a low cost electronic guarding system that offered early detection and remote video verification was required, and as a result the Videofied wireless MotionViewer solution was selected. Videofied is being used to protect substations and mobile phone communications towers around the world, including Australia. Development of the Videofied Outdoor MotionViewer was undertaken with special consideration given to the security of electrical substations, whereby US energy provider Duke Energy was consulted.

Videofied is a wireless video alarm system that operates via a military grade wireless radio network. Incorporating a central communications and management hub, each system wirelessly communicates with up to 24 wireless outdoor MotionViewers (motion detector with built in digital night vision camera).

The Videofied Electronic Guarding system is a completely wireless video alarm system that detects the movement of an intruder and then reports the 10 second video alarm of each

detection to the security control room via the central communications unit over the GPRS network or Ethernet communications path. The security monitoring station can then immediately see the video associated with the activation of the MotionViewer detector, allowing the operator to intelligently respond to the video alarm event. Priority police and or guard responses can then be summoned to the site to deal with the video verified intrusion. The Videofied system can be completely pre programmed prior to getting onsite, so the installation time is minimal.

Based on previous copper theft incidents, Jason identified key areas that required protection around the Yallourn Return Water (RTW) Pump Station site, and MotionViewers were placed in positions to protect these key areas.

**Result:**

In the early hours of the morning in mid December, the Videofied MotionViewers detected an intruder entering the RTW Pump Station Precinct on the Yallourn site. The Videofied system immediately transmitted the intrusion with video of the offender to the security monitoring station, which in turn alerted TRUenergy's security personnel of the intrusion. Security protocol was to activate the Emergency Response Plan (ERP) where a joint response by onsite security and local police was activated. Considering the intrusion was verified through remote video images of the images showing the intruder attempting to take copper grounding cables from the site, police provided a rapid response which resulted in the intruder being located and arrested.



***Videofied Outdoor MotionViewer positioned on the TRUenergy Yallourn Site***