  
  
**How to Avoid Cable**

**Avoidance Technology**

**OXEMS Blog  
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**TERMINOLOGY CAN BE MISLEADING**I know there’s sound logic behind C.A.T. technology, but the very words ‘Cable Avoidance Tool’ strike me as being counter intuitive. It must be because OXEMS technology is designed to find and identify underground assets – not to avoid them!

**LOCATING AND IDENTIFYING AN ASSET**

A utility gang deploys a C.A.T & Genny when they want to check to see if there’s an electricity cable in the area for example. Electricity cables are the easiest to find because by definition they have a signal running through them – the electric current itself. That signal radiates some electromagnetic radiation that a C.A.T can pick up. It knows that it's an electricity cable because it is running at 50Hz. It can even determine if there are two cables running a foot or so apart. But as to which cable is which? Well that’s another question. Had the cables been tagged with OXEMS Tags, the gang would be able to answer that question without ever having to dig down to the cables. Gangs have two jobs to do before they can even start to think about turning their attention to actually repairing a cable – locate and identify.

**LOST UNDERGROUND**

The beauty of OXEMS tagging technology is that, as well as tagging the cable, the repair itself can also be tagged. One of the biggest problems with underground electricity cables is that it’s the repair joints themselves that will most likely fail in the future. And because that specific repair joint is not accurately recorded at the time of repair, what does the next gang do in the future when they need to re-locate and identify it? Yes, they have to dig holes again until they find it.

**METAL VS PLASTIC PIPES**

A C.A.T & Genny will continue to be used for metal pipes until they are replaced with plastic pipes. For the time being, if they can find a surface asset such as a valve on a metal pipe, then they can use the Genny to pass a signal through the metal that can then be picked up by a C.A.T. In fact the ferrous properties of metal pipes makes them perfect for carrying signals. Of course they are also perfect for picking up signals that are naturally occurring in the ground. Realising that plastic pipe technology brings new problems with it, utility companies have tried running a metal strip the length of the pipe, but that often breaks, or even having plastic pipes manufactured within which there is a metal strand, but that has a serious cost implication. OXEMS Tag the key points of interest not the pipe itself, though of course the key points are always integral to the pipe.

With the OXEMS system, any pipe or cable, be it of metal or plastic construction can be tagged, located and identified with equal ease.

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