# **Victorian Electrolysis Committee**



# Fact Sheet – Reinstatement of Electrolysis Feeders

Work that may impact the electricity supply in your area is necessary to replace critical electrolysis mitigation infrastructure that has been stolen. The information below describes why the work to replace the stolen copper cabling is important and urgent.

#### Why are these planned works required?

In many locations electrolysis mitigation feeder cables are found on electricity poles. Large scale thefts of copper electrolysis feeder cables from the poles in your area have resulted in the electrolysis mitigation system being severely compromised. This action has significantly increased the potential impact of stray current corrosion and is putting the integrity of the underground assets connected to the system and in turn community safety at risk.

## Why is this work urgent?

There are highly critical underground assets in your area such as transmission gas pipelines and there could be severe consequences should these pipelines fail.

The safety of the community and the reliability of these underground structures have been compromised since recent copper thefts. This necessitates the urgent restoration of the electrolysis mitigation feeder system in your area.

### What is electrolysis?

Electrolysis is the effect of stray electrical direct currents on buried or submerged metallic structures such as pipelines.

#### How does it occur?

Return electric current from a source such as a railway leaves its normal path and travels via an unintended route such as a metallic pipeline.

#### Why is it a problem?

Corrosion damage can occur at the location where the uncontrolled stray current leaves the underground structure to return to the source. This can result in a serious pipeline failure.

#### How are underground assets protected against stray currents?

The Victorian Electrolysis Committee (**VEC**) uses an electrolysis mitigation system that is designed to reduce the effects on metallic structures from the leakage of stray electrical currents. These systems comprise of feeder cables, substation equipment and drainage bonds connected to the underground metallic structures. This prevents corrosion by returning the stray current in a controlled manner.

#### Who are we?

The VEC is established under the Electricity Safety Act 1998 to: establish and maintain standards for systems of cathodic protection and for the mitigation of stray current corrosion; provide advice to Energy Safe Victoria (**Energy Safe**) on any matter related to electrolysis and the regulations relating to the cathodic protection, and to the mitigation of stray current corrosion when requested to do so by Energy Safe; and encourage the development of new methods and technology to increase the efficiency of systems for the mitigation of stray current corrosion.

