

## **Transformer oil vandalism**

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### Abstract

Transformer oil is a highly refined mineral oil that is used in transformers, certain types of capacitors and switchgear. The primary function of the oil is to:

- act as a coolant
- insulate
- suppress corona and arcing.

Due to the fact that it is a mineral oil, it can be used for other applications, which has opened up an opportunity for vandalism. Several utilities in the East and Southern Africa region have reported on significant numbers of cases of transformer vandalism and theft of oil from transformers, resulting in transformer failures and prolonged disruption of supply to customers. The objective of this paper is to present the results of a scan commissioned by PIESA into potential solutions to address this problem

The solutions discussed in this paper range from simple measures such as awareness campaigns to complex ones such as dielectric replacement. The appropriate solution will vary between countries depending on the extent of the problem and the desperation of the vandals.