

ASP Safety Alert Electrical Safety & Compliance

Alert Number: SA03_20

27 April 2020

Subject: Incident - Low Voltage Cross Polarity & Transposed Conductors

Key Messages

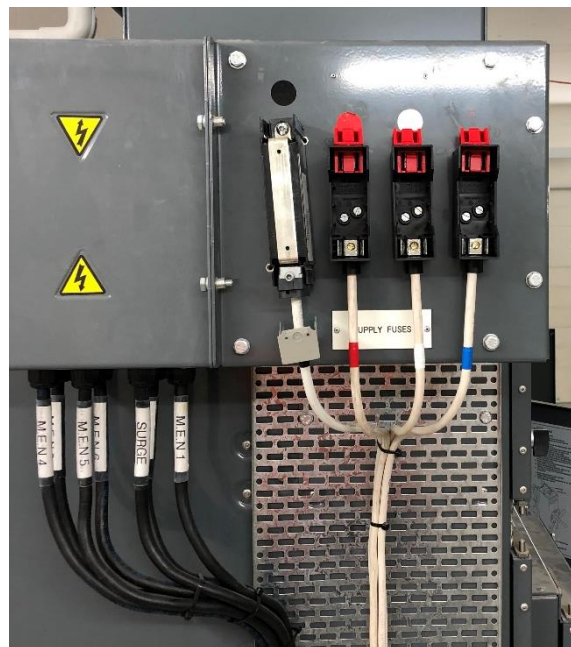
**Electrical installations must be constructed, connected and tested as per Ausgrid's Network Standards.
All workers must be suitably qualified, trained and authorised to conduct the work**

Dear ASPs,

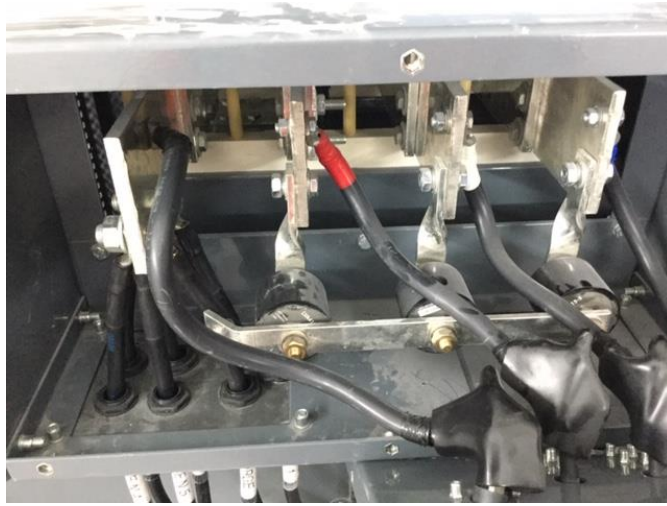
Description of incident or hazard:

During the commissioning of a new basement chamber substation for an ASP constructed contestable project, Ausgrid staff identified an anomaly with the protection relay voltages. Ausgrid staff conducted phasing checks and identified that there was a potential cross polarity or transposed conductor issue. Ausgrid staff then isolated the Low Voltage and High Voltage feed to the Low Voltage switchboard to further investigate. Ausgrid conducted on site investigations and initiated a Level 2 ICAM investigation into the incident.

On completion of Ausgrid's investigation it was found that the 62A auxiliary fuse panel had not been installed correctly by the ASP causing a transposition on 'A' & 'B' phases and a cross polarity between 'C' phase and Neutral. This effectively raised all earthed equipment in the basement chamber substation to 'C' phase voltage potential.



Picture 1 - 62A auxiliary fuse panel as installed on commissioning night



Picture 2 - 62A auxiliary fuse panel Busbar extensions and surge arrestor showing transposed phase and neutral connections

Extent of impact:

Ausgrid workers were placed in a situation where there was the potential for electric shock. As the issue was identified quickly and all workers on site were following correct procedures and wearing the correct PPE there were no injuries. The incident was reported for further investigation.

All ASP staff involved were suspended pending the investigation outcomes. The investigation identified multiple recommendations that will be required to be implemented prior to the ASP being re-authorised to work on Ausgrid's network.

The incident also caused delays in the commissioning of the new basement chamber substation and delays to the contestable project. This causes impacts to the delivery of the customer connection project.

Immediate action taken to eliminate or control the risk:

Ausgrid staff on site quickly identified the voltage anomaly and de-energised the basement chamber substation to further investigate the cause.

ASPs are reminded of their requirements that:

- All workers performing contestable works on Ausgrid's network are suitably trained and authorised to conduct the work;
- All workers have suitable experience or supervision to correctly complete the works to all required designs, standards and procedures; and
- All workers hold the correct class of ASP authorisation for the work they are performing.

Ausgrid

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