ASSESSING THE POTENTIAL FOR ARC SUPPRESSION COIL TECHNOLOGY TO REDUCE CUSTOMER INTERRUPTIONS AND CUSTOMER MINUTES LOST

This presentation summarises the key points of a project carried out during 2008 by EA Technology Limited (EATL) for Scottish and Southern Energy Power Distribution (SSEPD). The project looked at the potential for arc suppression coils (ASC's) and residual current compensation (RCC) devices to improve network performance by reducing the number of customer interruptions (CI’s) and customer minutes lost (CML’s).

In the UK all DNO’s are incentivized, by the industry regulator Ofgem, to reduce CI’s and CML’s, hence all companies are keen to identify initiatives that could improve network performance. SSEPD has chosen to look afresh at the potential benefits that could be delivered by fitting ASC’s and how the safety concerns that have traditionally been associated with ASC’s can be mitigated by employing RCC devices alongside the ASC’s.

The project included:
- An assessment of the safety implications of using ASC technology, including an example risk assessment.
- Researching the current use of ASC technology in the UK and other European countries, looking to understand the benefits delivered and the pitfalls that need to be managed.
- A review of the ASCs and associated devices currently on the market.
- Analysing the performance incentive in the UK with the intention of identifying the optimum level of CI and CML for the SSEPD.
- An assessment of the benefits that could be derived and the costs that would be incurred if ASC technology were to be deployed to the top ten worst performing substations in SSEPD’s two distribution areas.