

Fluid-Filled Cables

Many higher voltage cables (33,000 volts and above) in our towns and cities contain viscous mineral oil as an insulating agent. This design was used for a number of years until modern materials were discovered to take their place. As a result we have a legacy population of these 'fluid filled cables' that continue to perform their function well but are known to leak on occasions into the ground surrounding them. Clearly this leakage has environmental implications especially if the cables are located in 'sensitive' areas near water courses.

As the cables get older these leaks increase and we need to decide how and when we replace these with modern equivalents. Our Southern Electric Licence area (1000km) has considerably more of these than our Hydro area (84km) although the basic issue is relevant to both. The leaks are usually associated with cable joints that we can find and repair although the cost of doing this is large and growing as the cable and joints get older. It is sometimes possible to replace sections of fluid filled cables with their modern equivalent but this solution has limitations and cannot be done often.

Our strategy going forward is to risk assess these circuits, factor in information on 'sensitive' areas (supplied by the Environment Agency) and try, wherever possible, to combine overlay work within other schemes. We believe we should increase our activity in this important area in the medium term and engage with stakeholders to adopt an agreed and understood approach.