



Challenges on the Horizon



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Challenges on the Horizon I

- Management of obsolescence/ageing assets
- Implementation of effective framework for the management of SF6 alternatives
- Managing the impact of inverter-based technology on protection systems
- Integrations of alternative fluids for Transformers
- Impact of temperature increases due to climate change on equipment in general and transformers and switchgear in particular.
- Development and successful implementation of self-healing fluid for FFC cables
- Exploration and development of rapid leak location technologies for FFC cables
- Small leak repair technologies that will not necessitate pressure reduction to minimise lost volume due to small leaks on fluid filled cables

Challenges on the Horizon II

- Incipient fault prediction in solid cables
- Remote overhead line and tower inspection solution implementation
- Overhead line dynamic rating implementation – how to account for topographical variation
- Remaining useful life assessment of the fixed portions of withdrawable switchgear
- Increased real-time condition monitoring of switchgear
- Increased real-time condition monitoring of transformers
- Legacy network is being challenged to realise the full potential of embedded generation
- Voltage control in view of the number of solar panels, EV and electric boilers, heat pumps etc