HV Maintenance Asset Guide
SWITCHGEAR

Understanding the condition of your Switchgear is essential to maintaining a safe and reliable electrical network. Comprising a range of devices used to control, protect and isolate electrical equipment, Switchgear plays a vital role in the distribution of power across generation, transmission and end-user systems. This guide outlines maintenance requirements, recommended servicing intervals and the risks associated with deferred maintenance, helping asset owners maintain reliability, safety and operational performance.

WHY DOES SWITCHGEAR REQUIRE MAINTENANCE?

- Maintain switchgear performance and reliability throughout its operational life.
- Identify developing faults early and reduce the risk of unplanned outages.
- Support asset longevity and ensure equipment continues to operate as designed.
- Support compliance with the Electricity at Work Regulations 1989 and relevant industry standards.

EAWR 1989 | HSG 230 | BS 6626

WHAT MAINTENANCE IS REQUIRED?

- Tightness checks on electrical connections
- Inspection of contacts and moving parts
- Lubrication of mechanical components
- Protection verification
- Insulation resistance testing
- Contact resistance testing
- Cleaning of internal compartments
- Cleaning of switchgear frontage and external surfaces

RECOMMENDED MAINTENANCE TIMESCALES

Every 12 Months

- Visual inspection and condition assessment
- Lubrication of moving parts
- External cleaning
- Oil level checks
- Leak detection
- SF_6 pressure guage checks
- Contact resistance testing
- Switchgear oil changes or sampling of oil-filled breakers
- Trip testing
- Internal cleaning
- Pressure testing of vacuum/SF_6 circuit breakers

Every 1–5 Years

- Tightness checks
- Protection testing
- Inspection of contacts and moving parts
- Insulation resistance testing

As Required

- Corrective maintenance
- Component replacement
- Protection parameter verification

WHAT HAPPENS IF MAINTENANCE IS NEGLECTED?

- Increase the risk of unplanned outages and costly downtime.
- Reduce network reliability, leading to production losses and operational disruption.
- Increase the likelihood of equipment failure, environmental incidents and emergency repairs.
- Expose organisations to financial, operational and reputational risks.

HOW QUARTZELEC CAN HELP

- Deliver one-off asset assessments or planned maintenance programmes.
- Provide specialist LV and HV inspection, testing, maintenance, refurbishment and replacement services.
- Help reduce downtime, extend asset life and maintain network reliability.

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