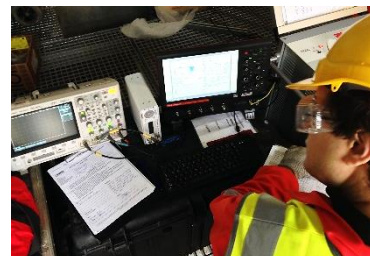


## HVPD Off-line Diagnostic Test Services

HVPD offer an extensive range of off-line diagnostic test services for insulation condition assessment of out-of-service MV & HV cables, switchgear, motors, generators, power and instrument transformers (current/voltage).



HVPD's factory acceptance PD testing, VLF testing and commissioning tests can detect any HV insulation problems with cable/plant equipment *before* it is put into service. Routine off-line maintenance tests can also be performed to assess plant insulation condition during planned outages.



### Factory Testing

- Partial Discharge (PD) and Tan Delta (TD) Testing in 100 kV HVPD High Voltage Test Facility
- Partial Discharge (PD) Factory Acceptance Testing (FAT) at customer's site

### Field Testing

- Very Low Frequency (VLF) Partial Discharge (PD) & Tan Delta (TD) testing up to 90 kV
- On-site Commissioning Tests (incl. 24-hour IEC 'soak tests')
- 50/60 Hz Withstand & Partial Discharge (PD) testing
- Time Domain Reflectometry (TDR) fingerprinting of cables up to 300 km in length
- Insulation Resistance (IR) testing with Polarisation Index (PI)

	50/60 Hz	VLF PD TD	IR	TDR
Partial Discharge (PD) diagnostics	✓	✓	✗	✗
Tan Delta (TD) diagnostics	✓	✓	✗	✗
Withstand test	✓	✓	✗	✗
Cable fingerprinting	Use TDR	Use TDR	Use TDR	✓
Soak test	✓	✓	✗	✗
Partial Discharge (PD) mapping	✓	✓	✗	✗
Factory acceptance test	✓	✓	✓	✓
On-site commissioning	✓	✓	✓	✓
Routine testing during service life	✓	✓	✓	✓
Can be performed onshore & laboratory	✓	✓	✓	✓
Can be performed offshore	✓	✓	✓	✓
Maximum test voltage	100 kV AC	60 kV AC	10 kV DC	n/a