Inspection & Diagnostics
Lifecycle support services of high-voltage equipment

Let ABB measure and analyze the condition of your high-voltage equipment to enable you to identify your future maintenance needs or to analyze the condition of the equipment and mitigate factors that may affect its reliability.

About us
ABB, the leading global player in high-voltage products, offers a wide range of electrical infrastructure solutions and services encompassing:
• Gas Insulated Switchgear (GIS)
• Hybrid Switchgear Plug and Switch System (PASS)
• Air Insulated Switchgear (AIS)
• Generator Circuit Breakers (GCB)
• Capacitor Banks and Filters
• Instrument Transformers
• Surge Arresters

As a globally operating technology organization and product manufacturer, we complement our offerings with a comprehensive range of round-the-clock support and life cycle services. The goal of ABB’s product support services is to improve the reliability and extend the operating life of your high-voltage equipment, while reducing operation and maintenance costs in each life-cycle phase. To meet the challenges of the evolving high-voltage service market, we continue to develop our portfolio, increase customer satisfaction, and improve our operations.

Inspection & Diagnostics
ABB gives the possibility to increase reliability of high-voltage equipment, through inspections and predictive diagnostic of your switchgear which allows for maintenance to be performed in a targeted and economical manner. Inspection and diagnostics can help to provide useful information regarding the condition of the product, thereby reducing costs and avoiding unnecessary maintenance and improving operational efficiency with extended asset life.

Inspection
By inspecting and analyzing your equipment we are able to program maintenance in a targeted and economically advantageous way. Interventions can be brought forward or delayed according to your priorities.

On-site inspections can consist of visual, infrared thermography, radiography, analysis of SF₆ gas and its decomposition products, measurement of PD on HV components and checks for gas leaks including the use of long range detection cameras.
Visual Inspection
Highly trained ABB staff can carry out visual inspection on the entire installed base of a substation including equipment manufactured by other OEM’s. The substation components are checked to make sure they operate correctly. This may include:
• Assessment of general condition of the equipment
• Assessment of Condition of equipment support structures
• Identification of possible safety risks

Site surveys
A site survey should be conducted if there is insufficient information on the status of the equipment at site. The site survey will determine repair, maintenance and spare part needs. In many cases site surveys are used to gather information for major overhauls, assess when action should be taken to avoid failure, or provide the basis for a long-term product specific life cycle plan.

Diagnostics
Periodic diagnostics are essential for safe and reliable operation through the equipment’s life cycle. Diagnostics can also help when understanding transient events or maloperations without further service interruptions, and to predict eventual critical events in your equipment, thus reducing the risk of failure.

A detailed report on the state of the Substation, HV components are provided.

Advice and proposals about maintenance and retrofitting solutions are included in order to preserve equipment and to prevent unscheduled outages.

Benefits
• A detailed maintenance plan to ensure continued high availability
• Evaluation and recommendation of possible upgrades
• Comprehensive spare part review, including recommendations for additional parts necessary for the process
• Fast, efficient inspection by experienced professionals