GE Grid Solutions

Spare Parts Programs for HV Equipment

Electrical asset availability and performance are key requirements for achieving substation operators' business objectives and return-on-investment. A reliable strategy of spare parts management, taking into consideration various lead times and shelf life, is critical to efficiently control risk and availability of installed assets. Substations' operators require an optimal spare parts management program to maintain and repair equipment during both planned and unexpected outages.

GE's Solution

GE provides customized Spare Parts Programs, securing the effective operation of installed legacy GE high voltage equipment. GE field experts can assess a fleet of installed HV assets and recommend a program that controls lead time and costs.

GE programs that ensure spare parts availability and obsolescence management include:

Maintenance Kits

GE's service experts have selected the parts required to perform the recommended maintenance plan according to the asset's age and model. Kits can be held as stock or delivered in line with the customer's scheduled outage plan.

Substation Spare Parts Analysis

The components assessment of the equipment installed in one or more substations helps identify the risk and criticality associated with each asset. A dedicated spare parts management strategy can be defined for each component type.

Strategic Spare Parts Stock

Following the result of the substation analysis, GE and the customer define the critical parts required to create a strategic stock according to the asset's criticality, condition and available budget.

Component Pool

A pool of critical spare parts for a specific asset model can be shared within several grid operators located in the same region through a multi-year adhesion contract. GE manages the pool, and repairs, manufactures and maintains the parts.

Applications

The spare parts programs applies to air-insulated switchgear, gas-insulated substations, power transformers, and FACTS and HVDC systems from GE legacy brands including Alstom, Areva, Alsthom, GEC Alsthom AEG, Sprecher+Schuh, Sprecher Energy, Schorch, and Cegelec during the product commercialization period and during ten years minimum after the end of the original product manufacturing.



Improved Availability

- 120.000+ references available for legacy GE models
- 24/7 access to spare parts at customer location
- Spare parts delivery 10 years minimum after the end of equipment manufacturing

Reduced Inventory Costs

- Limited inventory costs with the selection of spare parts covering customer acceptable level of risk
- Avoid capex investment with the component pool

Warranted Parts

- Access to original spare parts with manufacturer warranty
- Parts manufactured in ISO 9001 certified factories



Substation's Spare Part Analysis

Having the right part in the right place, in the right condition and at the right time reduces the risk of extended unplanned outages and speeds up the repair in case of asset failure.

GE offers substation and network high voltage asset analysis providing a detailed definition of the major parts in each bay, an estimated delivery time and budget of the critical components by asset type. This is in addition to the assessment of the condition of each component of the critical assets.

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Example of spare parts analysis

GE field engineers can also provide recommendations that help operators define a robust spare parts management strategy and plan the supply for each critical part.

Spare Parts Pooling Program for Gas-Insulated Substation (GIS) and Generator Circuit Breaker (GCB)

GE offers a customized program that ensures spare parts supply and presence of a GE field expert on site, reducing the outage duration in the event of failure in the substation.

GE's Spare Parts Pooling Program for GIS and GCB provides a premium service in which customers have access to a pool of critical components for specific GIS or GCB models and access to a GE Field Engineer on site within 24 hours in the event of failure. The pool of critical components is shared within a network of several grid operators through a multi-year contract.



Membership of the Spare Parts Pooling Program for GIS and GCB includes:

- **Full inventory** including the condition of the equipment installed in the substation, and spare parts in customer stock
- A pool of selected critical spare parts based on asset criticality, health, product type and mean time between failure (MTBF) history
- Privileged access and discount to buy spare parts from the pool
- Management of the spare parts pool program including components repair, manufacturing and maintenance
- Access to a GE Field Engineer on site to evaluate the failure and the actions to perform

For more information please contact GE Grid Solutions

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