

**ArresterWorks**

ArresterWorks.com



# ***Substation Arrester Condition Assessment***

***A complete  
package to  
assist  
substation  
owners in  
Arrester  
Asset  
Management***

***We Offer Assessment  
Service and/or Training***



## Substation Arrester Condition Assessment Overview



In this new world of a competitive and carbon constrained power market era, arrester assets owners need better justification for asset removal and spending

The management of mature arrester assets is an onerous task for most electrical asset managers with already too little time available. Decisions on whether to remove or not to remove mature arresters can only be done with reliable and clear data. Understanding the condition of your overvoltage protective equipment is fundamental to good decision about the future of these critical assets.

### **Substation Arrester Condition Assessment Service**

Detailed understanding of arrester degradation processes, arrester performance data and arrester life cycles are the basis of good decisions on when to remove arresters. Arresters manufactured in the 1980's and before may look perfect, but they may be more of a liability than they are a protector. With more than 30 years of arrester design and manufacturing experience, ArresterWorks can provide exactly what asset managers need to know to make an informed decision with regard to the future of mature arrester assets.

### The Process

- **Pre Site Visit Meeting**
  - a. Set clear objectives and identify all locations that need assessment
  - b. Initial training of personnel if desired by client.
  - c. Review existing data.
- **Site Visit** Along with client personnel as desired by the client, each site is assessed and the following completed.
  - a. Arrester Losses measured using state of the art watts loss metering.
  - b. Arrester age and type recorded.
  - c. Arrester thermal profile measured.
  - d. Arrester physical condition assessed.
  - e. Arrester location relative to protected equipment documented.
  - f. Protected equipment assessed BIL, BSL and Age.
  - g. Arrester Failure mode type determined.
  - h. Permanent monitoring equipment installed if desired.
  - i. New arrester installation options analyzed.
  - j. Complete set of photos collected.



- **Arrester Condition Assessment Report and Recommendations**

Within one week of the site visit, there will be a complete report on the visit with the following.

  - a. Condition of the assets relative to residual life
  - b. Losses summarized.
  - c. Failure mode analysis
  - d. Margin of Protection Analysis
  - e. Recommendations for replacement if necessary
  - f. Purchase assistance if desired.
  - g. Installation change recommendation if necessary
  - h. Recommendation on monitoring options.

#### **ArresterWorks**

ArresterWorks is an independent consultancy specializing in overvoltage protection of power systems and surge protection. The company was started in 2008 by Jonathan Woodworth after spending 29 years with Cooper Power Systems as an arrester Design Engineer, Engineering Manager, and Marketing Manager. He is an active member of IEEE and IEC Surge Arrester Standard Committees.