

## Benefits

- End-to-end electrical commissioning and maintenance of electrical power systems on power plants, substations and industrial plants
- Experts with years of on-site and off-site project experience
- Provision of state-of-the-art test devices, tools and maintenance procedures
- Technical backoffice experts as a direct link to consult and advise on procedures and services

## Facts

- 20+ years experience
- over 300 executed projects
- more than 5 years average experience of service personnel
- operative in more than 150 countries
- over 150 performed trainings
- more than 70 specialists available

## Services

- Onsite**
  - Inspection of electrical equipment
  - Function testing and re-commissioning
  - Routine testing
  - Site Surveys
- Offsite**
  - Technical consulting
  - Feasibility studies
  - Modernisation projects
- Admin**
  - Scheduling and manpower planning
  - Provision of test equipment and tools, rental and shipping
- Additional**
  - Operation and maintenance staff training
  - Independent assessments

## Tools

- Secondary testing: Various Omicron CMC devices, Sverker 750
- CT testing: Omicron CT Analyzer
- Breaker testing: Omicron Cibano 500 with MC2
- Primary & VT testing: Omicron CPC 100
- Various recording, measuring equipment and tools



## System Know-How

	Alstom	Siemens and Siemens Energy	General Electric	ABB	Schneider Electric	Beckwith Electric
<b>Protection Systems</b>	MiCOM Series	Siprotec-4 & 5 Series	Multilin Series	REx Series	MiCOM Pxxx Series	M-xxxx Series
<b>Synchronisation Equipment</b>		Siprotec-4 & 5 Series		Synchrotact 4/5 Series		
<b>Excitation Systems</b>	P320	RG3-S, Thyripol 1 & 3, ELRA	EX2100(e), Convertteam Semipol	Unitrol Series, Megatrol Series		
<b>Starting VFD Systems</b>		Sinamics Gxxxx Series	LS2100(e), Convertteam Semipol	LCI, ACS Series		
<b>Generator Circuit Breaker Systems</b>	FKG Series	HB3 Series		HEC(S) x Series		

## INP References

### Legacy Alstom Units

Germany: Lingen, Koeln-Niehl 3  
Netherlands: Claus C, Flevo  
Spain: Soto, Castejon  
Tunisia: Ghannouch  
Turkey: Kirrikale  
UAE: Fujairah  
UK: Langage, Grain, Carrington

### Siemens Units

Brasil: Novo Tempo  
France: Landivisio  
Hong Kong: Black Point  
Malta: Delimara  
Poland: Plock, Jaworzno  
Russia: Nizhnekamsk  
UAE: Jebel Ali, Al Aweer

### Hydro Units

Austria: Obervermuntwerk, Ottensheim  
Switzerland: Nant de Drance, Linthal, KW Bürgelen, KW Arniberg, KW Emmenweid

### Various Plants

Waste-incineration, industrial units, synchronous condenser units

