



# TESTING AND COMMISSIONING of SUBSTATIONS

**ETCBL Global** has been providing design services for transmission lines and substations for the past 08 years. Now we have added **testing and commissioning** of transmission lines and substations to our wing.

**We** have developed an experienced team who has great extensive knowledge in testing & commissioning works and can ensure reliability of our customers.

Our in-house technical team can perform following testing and commissioning services.

- 1. Testing & Commissioning of Substations up to 400kV**
- 2. Testing & Commissioning of Overhead/ underground Transmission Lines up to 400kV**
- 3. High Voltage Equipment Testing**
- 4. On site supervision**

# Service Offerings

## GIS Test (up to 400kV)

- Leakage Test
- Moisture Test
- Contact Resistance (up to 100A)
- **High Voltage Test**



## Power Transformer Test (up to 400kV)

- Insulation Resistance Test
- Measurement of Winding Resistance
- Magnetization Current Test
- Oil Test (BDV, Dissolve Gas Analysis)
- Operational Test of Other Equipment
- Bushing CT Test (IR, Polarity, Ratio, Excitation Test)
- Ratio Test
- Vector Group Test
- Short Circuit Test
- Tan Delta and Capacitance Measurement of Bushing & Winding
- Sweep Frequency Response Analysis (SFRA)
- Protection & Alarms



## Auxiliary Transformer Test

- Insulation Resistance Measurement
- Measurement of Winding Resistance
- Magnetization Current Test
- Oil Test (BDV, Dissolve Gas Analysis)
- Protection & Alarms
- Ratio Test
- Vector Group Test
- Magnetic Balance Test

# Service Offerings

## Control & Relay Panel Test

- Protection, Control & Annunciation scheme checking.
- Secondary Injection Test for core allocation
- Relay testing by OMICRON,
- Auto Reclosure of CB



## Circuit Breaker Test (AIS & GIS)

- Insulation Resistance Test
- Contact Resistance (Up to 100A)
- Closing & Opening time Velocity with CB Analyzer
- Close/Trip coil Resistance
- Operation checks
- Dew point of SF6 Gas
- Leakage Test
- Check for Annunciation
- SF6 Density Monitor Contact Changeover
- Local/ Remote Electrical Operations



## Disconnecter & Earthing Switch Test (AIS & GIS)

- Insulation Resistance,
- Operational Check,
- Open & Closing Timing Test
- CRM (Up to 100A)



## CT Test (AIS & GIS)

- IR for 5kV & 500V for Primary & Secondary
- Winding Resistance
- Polarity Test, Ratio Test
- Excitation Test (Knee Point current & voltage)
- Continuity Test
- Primary Injection (Core Allocation Test)

## PT Test (AIS & GIS)

- IR for 5kV & 500V for Primary & Secondary
- Winding Resistance
- Ratio Test
- Continuity Test
- Primary Injection (Core Allocation Test)

## Surge Arrester Test (AIS & GIS)

- IR Test
- Surge Counter Checking



# Service Offerings

## Transmission Line Test

- Conductor electrical continuity tests for each phase
- Insulation resistance tests for each phase
- Tower earthing system electrical resistance test
- OTDR test for OPGW
- XLPE cables test



## EQUIPMENT

We have the following equipment's.

1. CPC-100,
2. Insulation Resistance Tester,
3. Breaker Analyzer,
4. Primary Injection Kit, etc.

In addition to that, we also sourced other equipment's as per the project requirement from our reliable partners.

## WHY CHOOSE US?

1. We have in house Substation design team with vast experience in design as well as substation equipment. So, we can advise client the optimized solution which ultimately helps in testing & commissioning.
2. Our team members are well trained and experienced.
3. We help the client to identify and assess the risk involved in testing & commission works based on project requirement and propose appropriate mitigation.
4. We ensure workplace safety and workmanship.
5. We advise client time to time so that the project can be completed on time.

## FOR FURTHER INFORMATION

**Email:** [info@etcblglobal.com](mailto:info@etcblglobal.com)

**Website:** [www.etcblglobal.com](http://www.etcblglobal.com)

**LinkedIn:** [www.linkedin.com/company/etcblglobal](http://www.linkedin.com/company/etcblglobal)

**Mobile:** +880 1671 321158

**Address:** House: 12/28, Flat A1, Sir Syed Road, Mohammadpur, Dhaka 1207, Bangladesh.