



# Equipment Management Solutions

A Cat dealer **Customer Support Agreement (CSA)** is a convenient and affordable way to partner with your dealer to manage your risk and control your costs. A Customer Support Agreement is designed specifically to address your system requirements allowing you more time to focus on your core business.

## Customer Support Agreement Coverage

- Customized for your system
- Systems expertise by highly skilled & trained technicians
- Preventive maintenance inspections are performed to minimize unscheduled downtime
- Reduces the need for costly in-house diagnostic tools
- Follows manufacturer's maintenance specifications, which adhere to insurance policies Extended Service Coverage (ESC) guidelines
- Work is performed on a schedule to meet your needs

## Emergency Parts & Kits

- Readily available to meet your specific switchgear site requirements
- Switchgear parts preparedness kit levels can include: panel lights, ice-cube relays, batteries for PLC (if applicable), DC and AC fuses, diodes, DC power supply, touch-up paint, touchscreen, spare circuit breaker and protective relays

## Training Services

- Site specific training
- Site operation simulators

## Additional Service Offerings are Available for Switchgear Upgrades and Retrofits:

Changing power needs, generator set additions, system requirements or sequence of operation changes are just some of the reasons to utilize our experts to maximize the capability of your electrical switchgear. Implement a switchgear modernization and upgrade by utilizing your Cat Electric Power team of professionals. Our expert service technicians will perform an on-site evaluation to include your requested equipment improvements. Upon completion of the inspection, a site specific proposal will be developed to include recommended studies, equipment installation services, and a proposed schedule. After project approval, our service experts will start and complete the work in accordance with your schedule to keep downtime to a minimum.

***Ask your Cat dealer representative for an electric power system Customer Support Agreement and ESC Insurance Policy quote today. We are here for the long term and want to partner together to make you successful.***



## Scope of Work Can Include Maintenance and Testing of:

### Controls

- Verify control wiring and connections, perform pull test and fastener check
- Inspect system fuses and fuse holder(s) for proper size and integrity
- Verify system metering is accurate
- Verify utility metering is accurate
- Inspect metering PT's and control power transformers
- Verify manual switches for free movement and contact continuity
- Perform visual inspection of all wiring connections for cracking, overheating, insulation deterioration and corona

### Circuit Breakers

- DigiTrip check for and record any logged faults
- Verify protective settings are in accordance with the customer provided Coordination Study
- Remove circuit breakers
- Perform pre-cleaning inspection
- Perform DLRO test for contact resistance
- Perform insulation testing where applicable
- Clean and lubricate each circuit breaker
- Return circuit breaker to service
- Check electrical and manual close, open and trip operation

### Protective Relays

- Record model number, serial number, firmware revision and control voltage
- Download event logs
- Verify protective settings are in accordance with Coordination Study (provided by customer)
- Test each relay using the self test feature, if applicable

### Grounds

- Verify all common and ground wire connections (integrity and continuity)
- Tighten or repair ground connections as needed
- Verify 24VDC negative is grounded to earth ground

### Batteries

- Verify station battery connection
- Verify connections are corrosion free and properly torqued
- Record cell and float voltages, adjust per battery manufacturer's recommendation if required
- Inspect 24VDC best source
- Inspect PLC battery and replace every three years

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