

## BENEFITS

### Ensure Functionality for Maximum Protection

The electrical distribution system is the backbone of the data center providing safe and reliable power to critical IT equipment and infrastructure. This power is distributed from the utility or generator to the load utilizing various types of equipment including low- and medium-voltage switchgear, transformers, automatic transfer switches, uninterruptible power supplies, power distribution units, busway, panelboards and more. The basic function of the switchgear is to control, protect and isolate electrical equipment.

Although switchgear failures are rare, testing and maintenance is needed to avoid potentially catastrophic results including death or serious injury, and major equipment damage.

#### Benefits

- Increase system reliability
- Reduce unplanned downtime
- Ensure compliance with NFPA and other regulatory requirements
- Improve worker safety
- Maximize equipment life expectancy



### Maintain switchgear for complete power protection

The use, maintenance, and operation of switchgear must be managed to prevent the equipment giving rise to danger and to ensure the safety of the people who use it. Incorporating switchgear into your total power protection strategy is essential for the reliable operation of your data center.

Comprehensive switchgear services from the infrastructure experts of Vertiv™ ensure proper installation, operation and maintenance of switchgear components. Using industry consensus standards and best practices, we make sure your switchgear protects your electrical equipment and supports business continuity.

Our switchgear services include:

- Acceptance testing
- Startup and commissioning
- Preventive maintenance
- Performance check
- Comprehensive report

## Acceptance Testing

Nearly 70 percent of early equipment failures can be traced to design, installation, or startup deficiencies. To prevent such failures, the NETA-certified technicians of Vertiv™ are qualified to provide unbiased testing, independent of the manufacturers. Field tests and inspections are conducted to assess the suitability for initial energization and ensure systems are operational, within applicable standards and manufacturers' tolerances, and are installed in accordance with the design specifications. This testing also establishes baseline data particular to the installation.

## Startup and Commissioning

In addition to the initial acceptance testing, Vertiv technicians perform startup testing to ensure the system will perform its job once the power is turned on.

Depending on the complexity of the installation, one or all of the subsystems may be tested including the battery charging system, transfer switch, generator, and other major components.

A “pull the plug” test should also be performed by cutting off main power and witnessing that the system comes online, and can maintain and sustain the load transfer.

While startup testing might uncover some manufacturing or installation error, it's more likely to identify a weakness in the system design or a problem interacting with the other equipment in the facility.

## Preventive Maintenance

Vertiv's comprehensive switchgear services include a systematic preventive maintenance program to detect and

correct potential problems before they become major issues requiring expensive and time-consuming solutions.

As part of Vertiv's program, NETA-certified technicians perform visual and mechanical inspections, as well as electrical tests on switchgear and switchboard assemblies, power transformers, circuit breakers, metering devices and grounding systems. NETA recommends that these tests be performed every 24 months, depending on the condition, criticality, and reliability of the equipment.

## Performance Check

In between the biannual comprehensive preventive maintenance program, Vertiv technicians complete a performance check per industry guidelines. This check includes a visual and mechanical inspection and ensures compliance with existing engineering studies, drawings, specifications, and/or applicable safety standards.

## Comprehensive Report

The final written report is supplied in electronic format and will include:

- A summary of the project
- Description of the equipment tested
- Tests performed
- Test data
- Analysis and recommendations

Information from the report can be used to ensure that the switchgear continues to perform satisfactorily, minimizing downtime and maximizing life expectancy.

## Summary

Switchgear is a vital component of your data center's electrical system and shouldn't be overlooked when it comes to power system maintenance.

Our switchgear services are delivered by NETA-certified technicians who are versed in best practices and regulatory standards.

Comprehensive switchgear services from Vertiv give you peace of mind knowing that your switchgear is ready to perform when needed, resulting in the continued safe and reliable operation of your data center.

## Ordering Information

To learn more about this service and other Vertiv solutions, visit [VertivCo.com](http://VertivCo.com) or call 1-800-543-2378.