



DATA CENTER

(Confidential Client)



Project: Hyperscale Data Center Commissioning

Location: Ohio

Business Sector: Data Centers

Service: Engineering

Budget: \$153,000

Completed: 2023

Project Challenge:

Beginning in 2022, this client's organization started constructing new data center campuses in Ohio. Each campus was home to a 1MW data center that serves as a network support facility. TechSite was awarded the commissioning contract for the critical electrical and mechanical systems for one of these buildings.

As the facility approached completion, TechSite customized testing procedures/scripts to evaluate the operation of equipment to be commissioned.

TechSite Solution:

When the electrical contractor was ready for energization in May of 2023, TechSite began inspection and review of Cx readiness and start up activities (Level 2 and Level 3 Commissioning). Functional Performance Testing (Level 4) and Integrated Systems Testing (Level 5) started in July of 2023.

MISSION CRITICAL

- ▶ ENGINEERING
- CONSTRUCTION
- DESIGN-BUILD
- FACILITY MANAGEMENT
- MAINTENANCE





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(cont'd)

The critical systems in the facility that TechSite commissioned included:

- One (1) Utility MV Transformer
- One (1) 1.5MW Generator
- Two (2) Mixed-Air Units (MAUs)
- Three (3) UPS Systems
- Environmental Control System with multiple CRAC and heat rejection units
- All Electrical Switchgear, Panelboards, and Transformers in the building

During Level 4 commissioning, controls for the individual critical systems and EPMS were tested. TechSite was also enlisted to help evaluate the cooling system controls. This led the engineers to suggest edits to the customer's template testing scripts and As Left settings documents for this building's global design.

After functional testing was complete, Integrated Systems Testing (IST) was performed to evaluate the performance of the combined power and cooling systems under a variety of data hall loads. The testing utilized load banks to ensure correct operation of the systems under different scenarios.

As an integral part of the customer's Commissioning Team, TechSite's engineers uncovered grounding issues with the generator, and also identified HVAC setpoints that did not match the customer's requirements. TechSite reported the issues and monitored the responses to ensure the issues were corrected.

Once all the on-site activities were complete, the results from testing were tabulated, analyzed and documented in a final report back to the customer.

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Our purpose is to expertly plan, design, build, test, operate and maintain mission-critical space to maximize reliability, ROI and efficiency while providing the industry's highest level of customer satisfaction.

