

Colocation and Tenant Fitout for Confidential Data Center Client



PROJECT BACKGROUND

In 2022, a Confidential Data Center client on the East Coast* contacted Thermo Systems to assist them in developing solutions to furnish the non-critical BMS, incorporate electrical assets into an EPMS, and monitor the new HVAC equipment serving the data halls of their new two-story, 42 MW Data Center. In addition to providing those solutions, the scope included submittals, panel fabrication, instrumentation, PLC programming, SCADA application development, factory testing, and startup.

PROJECT CHALLENGES

- Colocation Provider Standards requiring customization of engineering process
- Design development during construction phase, with design assist methodology between Thermo Systems and the engineer of record
- Tenant specific requirements with minimal scope development
- Additional equipment monitoring requirements for electrical equipment added weeks before final testing
- SCADA template modification requirements outside of basescope were discovered during development
- Long Lead Times
- Fast Paced Schedule

SOLUTIONS

- Client specific central engineering team model provided efficiency and coordination in early design effort
- Leveraged client specific design knowledge to procure long lead equipment before design was complete
- Technology expertise and technical leadership allowed for modification of client standard graphics to match equipment supplied for the project
- Wide reach of projects within Thermo Systems allowed for flexibility in moving parts to this high priority project, enabling late-stage design changes to be integrated on time
- Scope development expertise of the onsite team enabled coordination with the engineer of record and colocation provider design team to modify standard design to fit tenant requirements

BENEFITS

- Design assistance for engineer of record and client
- Preconstruction, scope review, and scope gap budgets
- Trade and vendor coordination
- PLC Programming

TECHNOLOGY HIGHLIGHTS

- Rockwell PLCs (Micro800s, CompactLogix)
- AVEVA (formerly Wonderware)

PROJECT OUTCOME

Overall, Thermo Systems' industry tested and proven project approach for submittal development, procurement, factory testing, startup, and commissioning were utilized to meet the specific requirements of the client and their data center. By adapting our standard internal System Life Cycle (SLC) Engineering Guideline, the non-critical BMS allowed the client to fully control and monitor the HVAC equipment serving their new data center with no issues.

**On behalf of the client, Thermo Systems cannot disclose the customer name.*