


CONFIDENTIAL CLIENT




AMSTERDAM, NETHERLANDS
1 YEAR + 3 MONTHS

DATA CENTER PROJECT

 Commissioning & Qualification


 Building Commissioning

 Asset Management & Reliability


 Quality, Compliance, & Regulatory

 Human Performance

 Process & Manufacturing Technology

 Program & Project Management

 Automation & Information Technology

 The Chemistry of Full-Scale Operations™

 Data Centers

WHEN YOU NEED TO MEET A HIGHER STANDARD™

PROJECT OVERVIEW

CAI provided commissioning services for a 32 MW mission critical cloud operations data center. The project was a concurrently maintainable design (comparable to TIER III Design) and was completed in a record time of 15 months from equipment delivery to handover.

OBJECTIVE

- Factory Witness Testing of the Equipment
- Observing L2/L3 Commissioning
- QA/QC review of the L2/L3 Documentation
- Managing & Conducting Functional Performance & Integrated System commissioning

SERVICES PROVIDED

- Mission Critical Commissioning
 - Functional Performance Commissioning (L4)
 - Integrated System Commissioning (L5)
- Low Voltage Electrical switching during L4/L5 commissioning
- Client's Commissioning Automation System setup
- Schedule Management
- Issue Log management
- Standard/Emergency Operating procedure development

EQUIPMENT


- Medium Voltage Switchgear
- 18 x 2.5 MW Generators
- Medium Voltage to Low Voltage Transformers
- Electrical Transfer Control Systems (Utility to GEN Power Control)
- Automatic Transfer Switches
- Static Transfer Switches (Including output waveform verification according to ITIC Curve)
- 36 X 1.2 MW Uninterruptable Power Supplies (Double Conversion System) with autonomy time of 4 Minutes (approx.)
- Low Voltage Switchgear
- Computer Room Air Handling Systems (Evaporative Cooling System)
- Heat Trace Systems
- Building Automation System
- Energy & Power Monitoring System


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DATA CENTER PROJECT


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PROJECT SUCCESS

- Despite of multiple retesting due to firmware upgrade/issues (50% of STSs retested, 100% of the GENs tested twice) project was completed without delays
- Better planning/Commissioning Strategy saved 40% of commissioning time in comparison to similar scale projects
- All issues were tracked & resolution was managed by CAI, we coordinated all the Root Cause analysis efforts which helped the client understating the issues & helped vendors to improve their equipment quality for future projects
- Multiple design/QA-QC related issues were caught during L4 commissioning which might have caused downtime during operations, all those issues were tracked & equipment was retested upon resolution of issues
- CAI Team developed an in house application for recording/managing testing records which helped the client in 10-20% saving in Project management time
- Load Bank & testing planning was so well coordinated with the GC/EC that L4 commissioning never interfered with L3 commissioning
- Templates & process flow diagrams were established for CAI which helped in generating consistent commissioning documentation which saved 100s of hours for client's QA/QC team