

CONFIDENTIAL CLIENT




AMSTERDAM


1 YEAR + 6 MONTHS | \$500,000

GENERATOR RE-COMMISSIONING IN A LIVE DATA CENTER

 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 initially provided temporary generator commissioning support for a 40 MW mission critical cloud operations data center. The installation of temporary generators was necessary based on a vendor-identified critical component safety issue identified on the permanent generators. This data center was a concurrently maintainable design (comparable to TIER III Design) and was required to be fully operational during the entire commissioning period. As a second phase of the project, once the impacted permanent generators were either replaced or repaired all site generators were re-commissioned. During these phases a previously identified fuel fill system issue was also remediated which included the full recommissioning of that sub-system in parallel. At all times during the commissioning phases all critical load was concurrently maintained.

OBJECTIVE

- Commission over 26MW of temporary generators made up of 2 or 3 separate generators that were manually paralleled to support critical load
- Re-commissioned 45MW of permanent generators
- Re-commission 24 modified and re-designed fuel fill systems
- Conduct installation verification, IR Scanning witnessing, Temperature monitoring, point to point verification, pre-energized, start-up, functional and integrated systems testing for temporary & permanent generators and fuel fill systems
- Supported OPs team in developing procedures & managed transferring of load safely to alternate supplies within the COLOs
- Leading and managing commissioning process through all phases
- Support generator vendor at all commissioning stages

SERVICES PROVIDED

- Mission Critical Commissioning
 - Pre-energization inspections and test witnessing
 - Start-up witnessing and commissioning
 - Functional Performance Commissioning (L4)
 - Integrated System Commissioning (L5)
 - Vendor and commissioning process management
- Schedule Management
- Issue Log management
- Testing coordination

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
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VALUE DELIVERED

- At no point during the commissioning process was there an impact to client critical load
- CAI developed process workflows, templates, and vendor commissioning scripts as system vendors were unable to support these activities
- Based on CAI planning and coordination efforts it was possible to fully install and commission the temporary generators in four business days
- All issues were tracked & resolution was managed by CAI, we coordinated all the Root Cause analysis efforts which helped the client and vendors to understand the issues & vendors to improve their equipment quality for future projects
- Multiple design/QA-QC related issues were caught during the commissioning process and these were tracked to resolution
- CAI Team developed an in-house application for recording/managing testing records which helped the client by saving Project management time
- Templates & process flow diagrams were established for CAI which helped in generating consistent commissioning documentation saving efforts for all project parties