



SPE ELECTRICAL



CASE STUDY 4: CONFIDENTIAL

FINANCIAL SERVICES DATA CENTRE: PROTECTION COORDINATION STUDY

Client: Confidential
 Industry: Financial Services
 Plant Type: Data Center
 Project: Protection Study
 Contract: Lump Sum
 Date: 2016

“A protection coordination study for a large 30MW data center with an extensive 11kV distribution network and Hybrid Rotary UPS system.”

SPE Electrical was contracted by a **Confidential Client** to review the protection settings of an existing large, 30MW data centre for a sensitive financial services network.

SPE’s scope was to review the existing system configuration and protection settings, and to import the legacy SKM power system model into the ETAP simulation package. Once complete SPE then analysed all of the potential operating scenarios and fault currents before developing protection settings for the system.

SPE recognised that these type of protection studies are of key importance to critical infrastructure projects and spent a significant amount of time with the Client to understand the systems operation and configuration, so that every conceivable operating condition and failure mode could be considered. This resulted in SPE producing over 20 Time Current Curves, and a detailed 50 page technical report.

The plant consisted of two incoming 33/11kV utility connections, a large redundant 11kV cable distribution system, extensive standby generation and a complex system of Hybrid Rotary UPSs to supply the data halls.