



CASE STUDY

BLACK START RESTORATION

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ALL POWER STATIONS NEED AN ELECTRICAL SUPPLY TO START UP. BUT WITH A TOTAL ELECTRICITY BLACKOUT, THERE'S NO ELECTRICITY TO RESTART THE SYSTEM

A UK Power Station required a complete temporary power solution during their annual service and repair works. This UK Power station is an 819 MW gas-fired plant consisting of two gas turbines and a heat recovery steam generator, located in the heart of Lincolnshire.

PROJECT SUMMARY

MEMS technicians attended the site to make an assessment of loadings and the exact site requirements to engineer the most effective solution for the client. It was agreed that MEMS would provide a full temporary power solution with the use of a three 800kVA fully acoustic and containerised rental generators operating in parallel redundancy application with each supported with an auxiliary fuel tank complete with remote monitoring. Each unit was permanently mounted on purpose-built arctic trailers complete with access ladders and external EPO buttons.

Each machine was supplied with 25 meters of suitably rated insulated cable complete with power lock connectors which ran between each generator and the temporary main distribution board. From the main distribution board, we fed six sub-boards, each located 50 metres from the main board and housing 24x63A TPN C-Form outlets each supported with a type D breaker with adjustable RCD protection. The client's contractors would then plug their various items of equipment into the supplied outlets.

With resilience built into the design of the system, this allowed MEMS to complete planned preventative maintenance of the equipment without the need for an outage with one machine taken out of the paralleled group, serviced and then paralleled back.

THE RESULTS

The Power Station ran 24/7 from MEMS generators with no interruption of power whatsoever throughout the twelve-week hire period. MEMS took care of the entire project, including round the clock remote monitoring, daily refuelling and management support.

