



## CASE STUDY

# RJ POWER NETWORKS

Collaborative Engineering Solutions

**Scheme** Replacement of LV equipment  
**Location** 1 Future Walk, Chesterfield, Derbyshire  
**Completed** August 2017



RJ Power Networks carried out the safe removal, disposal and recycling of all the old equipment and then installed, tested and commissioned a new LV panel, power factor correction panel, battery tripping unit, remote generator connector panel and all containment and cabling, including the provision of health and safety file at 1 Future Walk in Derbyshire.

Following the failure of their Power Factor Correction section of the LV Switchboard, the client invited RJ Power Networks to tender for the replacement of the existing equipment. As part of the competitive tender process RJ Power Networks was one of three specialist market leaders in the power industry invited to quote for the works.

In addition to providing a competitive quotation and innovative technical solution, RJ Power Networks' long standing relationships provided the necessary confidence to both the network maintainer and the client, which led to RJ Power Networks being awarded this prestigious contract.



### Project Deliverables

The overall objective of the project was to replace all the equipment to the very latest specification with the minimum of disruption and to a fixed programme in order to minimise the running of the building off a temporary generator supply.

RJ Power Networks proposed solution included the following works:

- The migration of the services to a temporary generator switchboard, prioritising the essential services
- The removal of the existing plant and equipment
- Installation of the new plant and equipment
- The migration of existing cabling back to the new switchboard
- Installation of a new stainless steel remote generator connection panel
- Installation of a new power factor correction panel
- Installation of a new battery tripping unit
- LV cable installation from the LV switchboard to the external generator connection panel
- Testing and commissioning
- Compilation of a health and safety file including; operating and maintenance manuals, as built drawings and test certificates

### The Challenges and Solutions

Due to the project time scales the planning, programming and coordination of the works was jointly carried out by the client, network operator and RJ Power Networks, which involved several workshops being organised to ensure that all aspects of the project were covered and agreed well in advance of the commencement on site.

In addition to the enabling and pre-installation works, the RJ Power Networks team and the network operator worked over two very busy weekends to carry out the changeover works from mains power to the temporary power in order to enable the old substation equipment to be removed, and changeover from the temporary power back to mains after the installation of the new substation equipment and reinstatement of cabling.

As the existing cables were to be re-used, the new switchboard was designed and manufactured to match the cable connection positions of the original switchboard. This was also made more difficult due to restricted access for installation of the new switchboard and the logistical challenges that this created. In order to combat these challenges, the new Switchboard was designed and manufactured 300mm smaller in height than the original.

RJ Power Networks was delighted to have the opportunity to work once again with one of their long-term clients and enjoyed working with new people within the client's team. RJ Power Networks and the client continue to build and strengthen their relationship.



### Why RJ Power Networks?

RJ Power Networks undertakes a range of installation works, from control cabling and relay works, through to the provision of high voltage ring-main systems in private distribution networks, making us the ideal company for this project.

We continually strive to offer a consistent, reliable and flexible provision as well as always looking to improve and adapt our methods, works, equipment and services to maintain our cutting edge.

The business is led from the front by passionate individuals that care about quality, environmental processes and procedures and developing collaborative and sustainable partnerships, with the ultimate goal of securing customer loyalty and forging strong long-term business relationships.