



8.67MWe Landfill Gas Power Station



Location: United Kingdom
Output/Duty: 8.67MW Continuous Power
Equipment: 8 x Caterpillar G3516LE

Power Need With ageing and problematic Ruston RK270GS generators that were difficult to run and find spares for, our customer required the careful and multi phased re-engineering of their landfill gas power generation facility. This was to be carried out whilst incurring the absolute minimum of downtime and interruptions to production.

Solution Eight suitable CAT G3516LE generators were selected from the client's fleet of units. Located as far afield as Aberdeen and Norfolk, they were decommissioned and collected with their associated control systems and LV synchronising breakers. They were then transported to our Great Haywood workshops, where they were mounted in pairs onto specially designed steel bases that not only would accommodate the generator and control panels, but also support the overhead stainless steel silencers once installed on site.

Engine cooling systems were also engineered before pre delivery to site, with both high and low temperature circuits configured to utilise plate heat exchangers which would then be integrated into the existing services and employ the Ruston radiators already on site.

Site preparation involved the phased removal of the 65 ton Rustons, along with their associated pipework and cabling back to clean interface points. Civils were then modified to suit the new cabling requirements.

Conversion of the old 11kV breakers was also carried out, to allow them to be used as feeder breakers rather than synchronisation, this is now carried out at LV along with G59/3 mains protection at each generator.

Once preparations were complete, the pairs of generators were delivered, positioned and connected to each service in turn, including the utilisation of the old exhaust silencers to house individual flues for each engine.

Due to the difference in gas pressure required by the Ruston and Caterpillar units, Yellow Power Ltd were also commissioned to relocate and install a Haase gas plant from another site and install alongside the existing extraction facility. This was then dismantled once changeover was complete and commissioning finished to the customer's satisfaction.

Results The project took 18 months from start to finish, with every milestone successfully hit in both time and budget. Our client now has a rejuvenated facility that will hopefully serve them with reliable power for many years to come.

For more details, please do not hesitate to contact our sales team at: sales@yellowpower.com or telephone +44 (0)1889 882255

