



CASE STUDY:

Grafham Water Treatment Works

Bells Power Group were engaged by Anglian Water & SSE to design, develop, fabricate, install, test and commission a complete turnkey generator system.

The client issued an early RIBA Stage 3 design brief with key planning items such as environmental requirements – acoustic levels, air quality equipment loads, performance requirements and running durations.

The Bells Power team working collaboratively with the client, professional team, engaging early with our design team, supply chain, our internal experienced experts, we developed the design to ensure it was technically & commercially compliant.

Our scope included but not limited to: -

- Generator Sizing
- Site Layout Co-ordination
- Fuel and Lube oil tank sizing
- Under belly fuel tank structural calculations (drawing attached)
- Acoustic calculations
- Acoustic report
- Cable calculations
- PLC design philosophy
- Technical Submittals (including provisional design drawings)
- HAZOP meeting
- Engagement with local authorities & EHO

At the end of this design stage the client instructed for long term synchronise for Triad revenue purposes. Bells Power Group won the contract to deliver over a 26-week period which included programming, technical approval, procurement, manufacture, logistics, site installation, testing/commissioning the generator system comprising of:

- 4 x 2500KVA 11KV Generators
- Acoustic Solution 64 dB(A) @ 1m
- PLC/SCADA System
- 20,000 Litre Fuel Storage
- Full Mechanical Installation including Pipework
- Full Electrical Installation including Control Panels and control wiring
- CAT ladders, gantry platforms and walkways
- Post PC Anglian Water requested that the system be enhanced to meet with the MCPD emission requirement of Nox 190mg/n-m due to the site running Triad/STOR, we undertook the full design package including interfacing with the EHO and produced a scheme for pricing to the Anglian Water CMT.

Again, the Bells Power Group tendered, won and successfully delivered this design & build package which included installation, test & commission of the 4 SCR system which meet the requirements set out in the MCPD.

