

Engineering Solutions and Energy Power Project Installation

# Case Study

## **Turnkey Power Project**

A requirement for new power on site for the UK's leading recycling and waste management company allowed ESE to offer full turnkey solution project managing the upgrade.



As a result of new plant being installed to enhance their recycling processes, the client required more power on their site. The existing utility supply to site was insufficient to support the increase in power demand. ESE were able to offer a full turnkey solution, managing their supply upgrade without any impact on the clients day to day operations.





Contact us 01389 729008 www.esenergyltd.com



**Turnkey Power Project** 

#### Client:

Major Recycling & Waste Company

### Market:

Recycling

### **Project:**

To provide full turnkey project management, ensuring continuity to power supply on site whilst co-ordinating a utility supply upgrade. New plant had been added to enhance their recycling processes and their utility supply was not sufficient to supply. With ESE's expertise in harmonic analysis we could ensure the incoming supply and generator were sized to eliminate the effects of harmonics.

As an environmental recycling company a key requirement in selecting a partner was to ensure emissions and carbon footprint were minimized during this transition period, which was 12 months.



#### Package:

ESE managed the entire upgrade process from application to the local DNO, submission of documentation, chairing site meetings to managing the contractors on site.

During this period a 1250kVA Biofuel generator was provided along with a 30,000 litre tank to supply temporary power to the additional operations.

The generator was operated, serviced and maintained by ESE. Renewable Obligation Certificates (ROC's) were also claimed for the power provided on site by the Biofuel generator. This meant a substantial saving on fuel costs throughout the 12 month project period.

#### **Project Solution:**

The Client took advantage of ESE's experience in managing projects between 1 and 200+MW.

From first concept to operation on site ESE met all the clients business goals; commercially, logistically, environmentally and operationally. From small scale installations to large complex projects we assist and manage every stage.

#### **Technical Information:**

The new equipment being fitted by the client was found to contain high levels of harmonic distortion. This was found at the initial stages of the project through an in-depth load analysis. If the generator had not been rated correctly, the load being supplied, or its components, could be damaged by the effects of harmonic distortion and the performance of equipment affected. Therefore getting the size of the equipment needed was of paramount importance.

