

Project Profile

Project Description:	Electrical Supply Upgrade
Location:	Houstoun Industrial Estate, Livingston
Client:	Mitsubishi Electric Air Conditioning Systems, Europe
Project Value:	£125K
Project Duration:	November 2015
Sector:	Industrial



Callidus Design was appointed by Mitsubishi Electric to develop the design for a new High Voltage electrical supply to one of Mitsubishi's existing production facilities in Livingston. In order to increase the electrical capacity for their proposed new process, the electrical supply required to be upgraded from the existing low voltage system to a new high voltage connection.

An electrical load analysis based on the new process to be installed within the core building and auxiliary areas of the building was carried out to determine the size of the new supply. Negotiations with Scottish Power were conducted for the necessary electrical upgrade. Callidus Design developed a design and specification for the electrical equipment and infrastructure to accommodate the new high voltage electrical supply.

The design included the specification of:

- A new HV ring main unit suitable for future expansion into other adjacent buildings owned by Mitsubishi Electric.
- HV cabling and trench details.
- A new package substation comprising of a cast resin dry type transformer and low voltage switchboard. The switchboard design was based on the requirement to serve the existing switchboard and the electrical loads identified by Mitsubishi Electric for their new process.

The specification and sequence of works was written to ensure that as much preparation and installation works as possible were carried out before any electrical shutdowns took place to minimise the power outage period and therefore disruption to the building's operations.