

# Overcoming Access Issues for Flagship London Retail Generator Installation

**Location:** Oxford Circus, London

**Products and Services Supplied:** Standby Generators

## Overview

Being a prestigious and conspicuous part of its business, a national retail brand sought to guarantee the continuous power supply of its flagship Oxford Street store. As well as overcoming access limitations, due to installation six floors above the store, shentongroup provided a backup generator solution working as a peak lopper to enable the store to cope with the high electrical demands of peak periods on one of Britain's busiest shopping streets.

## The Problem

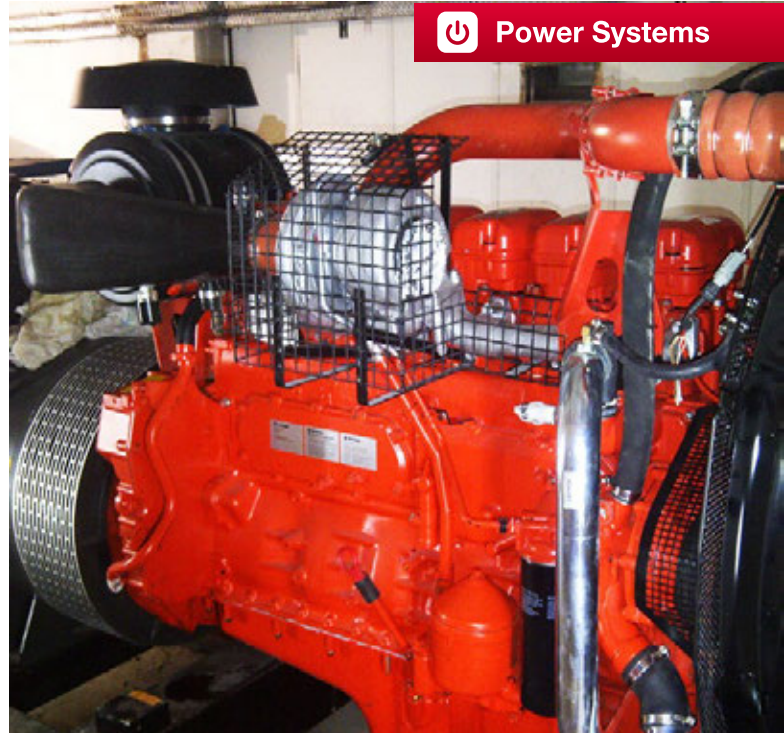
shentonggroup was contacted to find a solution after Powell Electrical Services found it difficult to source a provider to complete the project to the strict client requirements. shentonggroup's Derek Barry elaborated: "Not only did the work have to be undertaken to meet a narrow timeline, but it had to be carried out whilst this busy store was operational".

Because the only viable location for the generator to be installed was on the 6th floor of the building, in an area that can only be accessed by lift, a number of scenarios were considered to aid installation. Derek Barry explained: "One scenario examined was to crane the generator in through the roof of the building. However, being one of the UK's busiest shopping streets, this would cause too much disruption to the busy Oxford Street store". Derek continued: "The solution we arrived at was a complete strip down of the generator engine. The engine and alternator were taken apart so that all elements of the 8 tonne generator could fit into a lift 850mm x 950mm, with a load capacity of just 600kgs. This meant around 15 trips just to get the generator to its location on the 6th floor".

To fuel the generator, 7 bespoke fuel tanks were made to fit the lift capacity to deal with the access issues to the sub-basement. In order to provide their contents to the generator, shentonggroup installed over 60 metres of fuel pipe.

Delivery of the generator had to be out of hours to prevent any loss of revenue to the store. To meet this requirement, delivery and installation was scheduled from 10pm – 3am and had to be completed within this short window of time. 9 engineers worked on the installation.

The generator solution also acts as a 'peak lopper' to enable the store to deal with the high electrical demands of peak periods. Otherwise known as peak shaving, the generator is synchronised with the building's mains power supply to always deliver enough power to meet demand that cannot always be met by the mains power supply. challenges, the work had to be completed by the time the store introduced extended opening hours in order to cope with a forthcoming, large national sporting event".



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## Solution

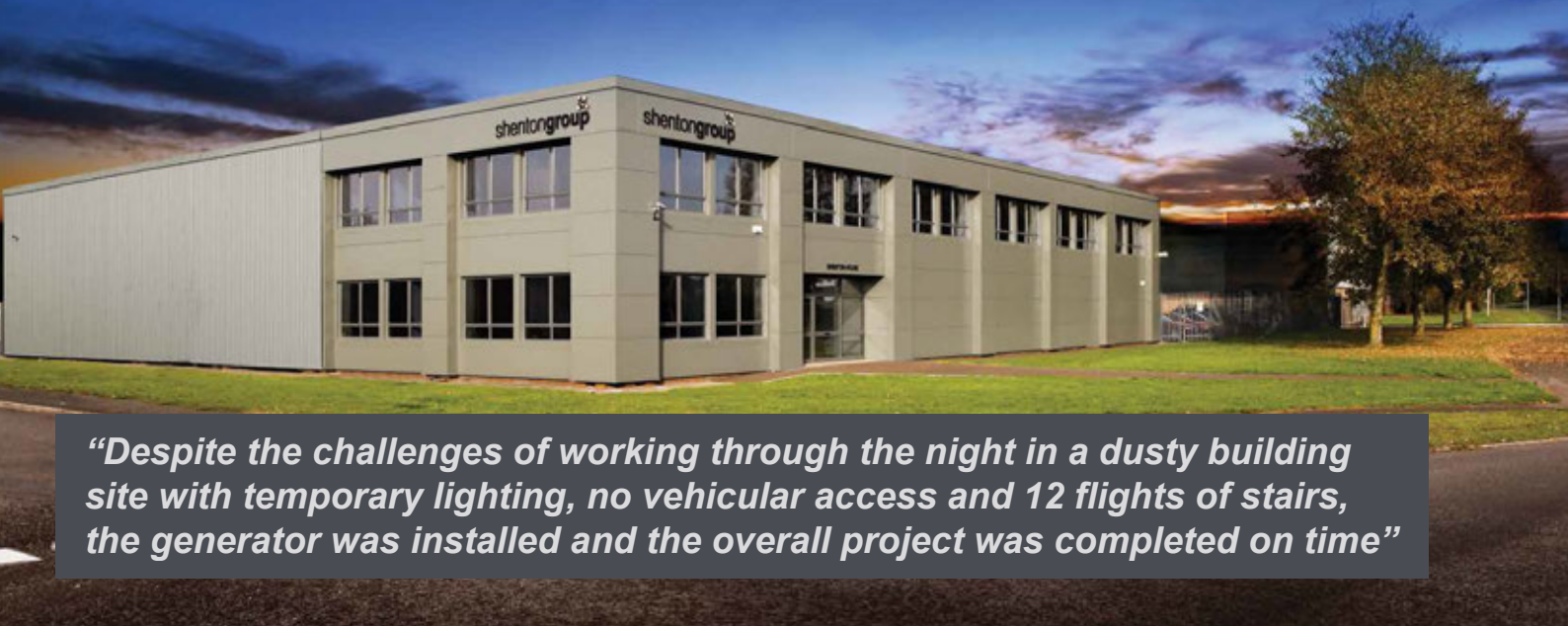
To manage the peak demand of the house, shentonggroup installed a 33kVA Generator with a 100A 3ph AMF Panel, a size that can also be used to support smaller sized commercial properties. This option provides an output of 50amps a-phase on a 3-phase power supply.

The generator dimensions for this project were 2.4m long x 1.1 wide x 1.8 high. Installed near the driveway of the property, the fuel tank in the base of the generator was sized to allow for 31 hours of use. The generator needed to fit on a pre-cast concrete slab, hidden by a brick built wall. By client request, cabling had to be run in trenching and hidden from view, thus

maintaining the rural aesthetic of the property.

With the client's Christmas deadline in mind, receiving the order on the 15th November, shentonggroup manufactured, supplied, installed and fully commissioned the system by the 20th December.

In addition to the backup generator solution, the client opted for peace of mind with a shentonggroup generator maintenance contract, providing a 24 hour, seven days per week emergency response service.



*“Despite the challenges of working through the night in a dusty building site with temporary lighting, no vehicular access and 12 flights of stairs, the generator was installed and the overall project was completed on time”*

## Outcomes

shentonggroup provided the client with an innovative solution to installing their standby generator and fuel tanks in extremely space-limited areas, over six floors apart. Despite the challenges of working through the night in a dusty building site with temporary lighting, no vehicular access and 12 flights of stairs, the generator was installed and the overall project was completed on time.

The work was undertaken without any interference with store's opening times, nor trading and the company is now guaranteed continuous power, regardless of whether National Grid supplies are sufficient or not, thanks to the generator acting as a peak lopper.

## About shentonggroup

shentonggroup is the UK's leading technical expert in standby power, uninterruptible power supplies, and combined heat and power supplies. The company provides power solutions to organisations spanning a broad array of industries that rely on continuous power supplies and includes; finance, telecoms, healthcare, IT, manufacturing, retail, education, government, utilities, and sport and leisure.

shentonggroup's standby generator range includes single and three phase generator solutions, ranging from 10kVA to 3.2MVA. Being British built to the highest quality and safety standards, shentonggroup generators are ideal for use as prime power or standby power supply usage. All shentonggroup diesel generators include; a full range of weatherproof canopies to meet sound attenuation levels; proven industry-leading control systems and switchgear hardware; integral bunded base-frame fuel tanks and fuel management systems; containerised modular solutions; custom built drop-over acoustic canopies; and skid-mounted 'open' sets for specific applications.

shentonggroup provides a range of DEFRA-approved bulk fuel tanks,

including plastic fuel tanks and double-skinned steel fuel tanks. Polyethylene bulk fuel tanks are maintenance-free, fully-bunded and are OFTEC and DEFRA certified. They are available in capacities ranging from 1220 litres to 5000 litres. shentonggroup's steel bulk fuel tanks are purpose built and double-skinned. They are manufactured to BS799 part 5 and comply to both statutory pollution prevention PPG2 and DEFRA regulations.

Generators can also be configured to provide 'Peak Lopping', otherwise known as 'Peak Shaving', to provide additional power when mains supplies cannot deliver enough power to meet peak demands. shentonggroup can configure generators so that they use the most cost effective mains power, but provide added support to reinforce mains power during periods of high demand. Peak lopping is required when a facility runs out of power, rather than making standby provision for power failure.

To find out more about your standby power options, contact the shentonggroup technical team on 0844 888 444 5 or request a site survey at [www.shentonggroup.co.uk](http://www.shentonggroup.co.uk).