

# Listed Building Underground Generator Installation

**Location:** Liverpool

**Products and Services Supplied:** Standby Generators

## Overview

A leading support services and construction company was faced with the challenge of removing an obsolete generator and replacing it with a capable 800kVA set, all within a confined underground area within the basement of a listed building. The company turned to shentongroup to manage the switchover to the new generator, which included sympathetic building augmentations to accommodate the new, larger unit, and to manage its exhaust and fuel supply challenges.

## The Problem

Working on projects involving listed buildings requires close working relationships with architects, consultants and of course, local authorities and conservation bodies.

The now outmoded, original generator was only able to provide power to a passenger lift in the event of a power failure. The building's owners stipulated that they required a standby power solution to provide electricity to the entire building.

The project was particularly challenging, firstly because the generator was located in the basement of the listed building and secondly, the opening to the generator installation area was only large enough to remove the older, smaller generator out and not to accommodate the new, larger and more powerful unit.

In addition, the underground location also posed cooling, exhaust and fuel-supply challenges.

## Solution

As the old generator was sited in the undercroft of the building and beneath a pedestrian thoroughfare, the old generator set had to be removed through an aperture in the footpath.

shentongroup's Sales and Marketing Director, Curtis Meek, highlighted how this challenge was overcome; "We were aware that the new 800kVA set would not fit through the same opening, so we arranged to have the aperture sympathetically enlarged. The new set was specially designed such that it could be split apart into engine and alternator. It was then craned into the undercroft, reassembled and manoeuvred into position".

On the delicate nature of the project, Curtis explained; "As it is a listed building, we spent considerable time working with the consultants, architects, landlord and local authority to ensure all the regulations and local



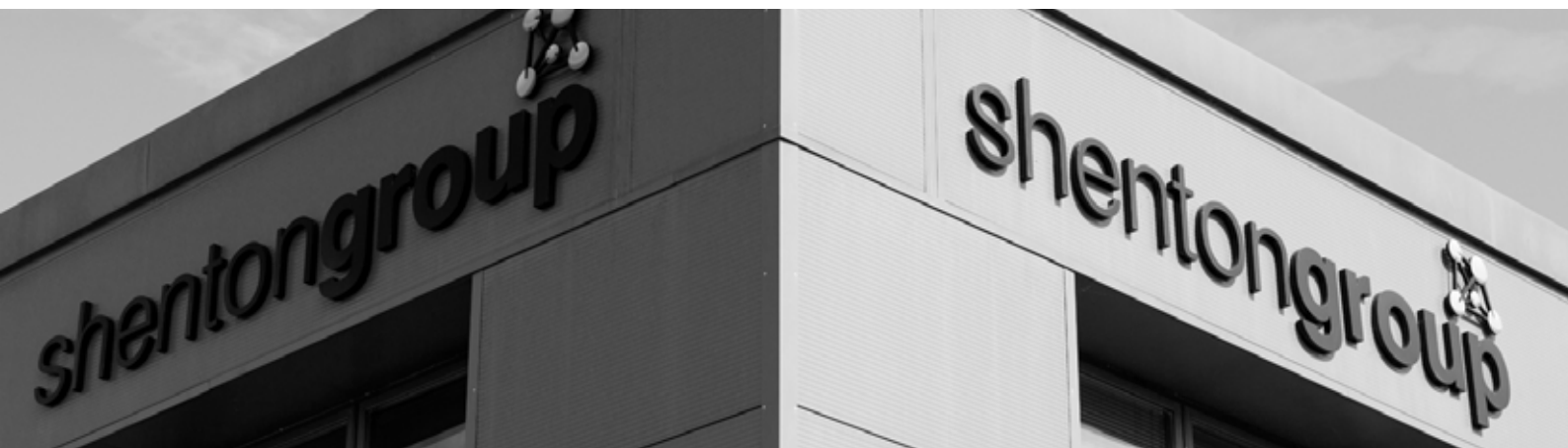
 Power Systems

*"The underground location also posed cooling, exhaust and fuel-supply challenges"*

requirements were met with minimum disruption to the local community".

To overcome the exhaust and fuel problems, shentongroup arranged for flues to be designed to blend in with the aesthetics of the listed building and specially manufactured fuel tanks to fit into the available space of the undercroft. Cooling was resolved by positioning the radiator on the roof of the building and subtly installing approximately 100 metres of adjoining pipework.

Curtis Meek concluded: "It took our specialist project team 6 weeks to complete the entire project. Key to the success was the backroom work carried out prior to starting site work, which included extensive planning, testing and proving of the solution".





*“Thanks to shentongroup’s efficiency and attention to detail, everything went very smoothly”*

## Outcomes

The final changeover had to be undertaken by shutting down the building over a weekend, completing the project and having everything back up and running by 6:00am on the Monday. According to a representative from the building management team; “Thanks to shentonggroup’s efficiency and attention to detail, everything went very smoothly”.

The building owners, and indeed occupants, now have the reassurance that, in the event of power outages the entire building will benefit from a reliable and capable continuous power supply.

## About shentongroup

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, healthcare, telecoms, 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 bundled 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.

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



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