

Powerhire Rental Generator gives Lifeline to London Hospital



Founded in 1733, this London hospital is one of the UK's largest hospitals and also shares its site with a teaching school which trains NHS staff and carries out advanced medical research. It carries our tertiary care such as A&E, maternity services and care for older people and children.

It is also a major acute hospital and offers specialist care for the more complex injuries and illnesses, including trauma, neurology, cardiac care, renal transplantation, cancer care and stroke. It is also home to one of four major trauma centres and one of eight hyper-acute stroke units for London.

Client

Major London Hospital

Project in Brief

Supplying rental generators as a temporary backup power solution during the upgrade of their existing system.

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The specialist services provided by this Hospital, such as complex pelvic trauma, family HIV care and bone marrow transplantation for non-cancer diseases that patents come from all of the South East of England. The trust also provides a nationwide endoscopy training service.



In fact it was this hospital, at the end of 2014, that was the location of the Channel 4 documentary "24 hours in A&E".

As an emergency measure all hospitals require back-up generator power should a mains power failure occur, and with a hospital of this stature this is undeniably essential. Having serviced the Hospitals back-up generators for a number of years we were informed that the Hospital would undergo a planned maintenance programme of the upgrade of their emergency generator power. And with significant site experience and good knowledge of the Hospitals processes & procedures, especially in an emergency situation, we were called upon to assess our availability to provide a complete turnkey solution for the provision of temporary rental generators to act as the Hospital's backup power whilst their improvement works were carried out.

Powerhire's temporary rental generator solution would carry out the identical role of the Hospitals current back-up generators and in the event of any power failure, partial or total, one or other of the temporary sets, or both will start and the required power will be supplied. This will then enable the hospital to install a new permanent backup generator power solution.

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Powerhire's biggest obstacle in the provision of the temporary rental generator installation was the immense restriction on space. However, due to our site knowledge we were able to offer the hospital with four alternative solutions in four different locations, providing the pros and cons of each as well as recommending which we thought would be most appropriate.



Once the client had decided which temporary rental generator option to proceed with Powerhire appointed a Project Manager to deal with producing all the necessary risk assessments & method statements, electrical & mechanical drawings and technical submissions. An incredibly detailed schedule of installation and commissioning for the temporary rental generator system was put together to ensure there would be absolutely no disruption within the hospital's facilities and vital services.

Before leaving Powerhire's depot in Kent all equipment was thoroughly checked and serviced and the temporary rental generators load tested in order to prove they would provide over and above the required power capacity as required by the client. This proved successful and therefore all rental equipment was loaded onto Powerhire's own transportation and taken to site with the installation team in tow.

The installation was methodically planned by Powerhire's Project Manager as the positioning of the 2 x 1250kVA rental generator sets, each in a 40ft container, was a work of art! Both containers required craning over the top of a building and locating within a very confined area. A 10ft container holding our temporary switchgear was also delicately craned over and positioned directly next to our temporary rental generators.

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The temporary rental generator system was set up to automatically synchronise and share the required power load as well as with the capacity to back each other up. As well as being controlled via Powerhire's switchgear it was also necessary to connect the generators to the Hospital's power infrastructure, consisting of numerous Automatic Mains Failure [AMF] panels, to enable the temporary and mains power infrastructure to communicate.



It was therefore necessary to connect Powerhire's temporary rental generators and switchgear to the Hospital's switchgear which was located on the 2nd floor of the building with over 3Km of rental cable.

We erected an immense amount of scaffold for the cable to sit along in order to reach the required location on the 2nd floor of the Hospital. To avoid any hazard to the public and to make it secure the cable was neatly arranged trefoil on cable trays. As required by the client the scaffolding was also made safe by securing with harass fencing as was the rental generators and switchgear to avoid any public intervention.

Before leaving site Powerhire Engineers commissioned the system by using the Hospitals "mains failed" signal to start each temporary rental generator separately as well starting both running in parallel to ensure that they synchronised. Following successful commissioning of the system and sign off by the Hospital Powerhire Engineers, Installation & Logistics team left site.

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