



Nottingham Tramlink Upgrade (NET 1) Modular AC UPS Systems

Nottingham Express Transit (NET) is the light rail tramlink in Nottingham which opened in March 2004.

The Tram Company operates the Nottingham Tram network and is responsible for all the UPS installations across the area backing up critical equipment including the ticket machines at each tram stop.

As Harland Simon UPS Ltd. originally supplied the UPS systems 10 years ago, The Tram Company returned to Harland Simon to upgrade 9 x UPS systems stipulating a like for like replacement system including batteries to fit within the 9U rack space available and with some additional loads.

Harland Simon carried out surveys at 9 x various tram stops to determine load readings over a 24 hour period and the maximum space available at each site.

Following the results of the survey Harland Simon submitted a proposal based on the PADS approved **Harland ProtectUPS® - Transport** modular UPS system plus Lead Crystal® batteries to support the load for 3 hours.

Lead Crystal® batteries provide a Form Fit Function replacement to regular lead acid and along with the other benefits it was decided to supply them so providing a longer life and higher capacity battery for the harsh environment presented in the cabinets.

Harland Simon was awarded the contract to supply the replacement equipment, remove and dispose of the old UPS plus the AC and DC installation and commissioning for 9 x street tram stops with further sites to follow in 2016.

The Tram Company and Nottingham Express Transit (NET) is now benefitting from a modern system capable of supporting the new load which fits into the existing enclosure, therefore saving on cost and energy due to the higher efficiency of the upgraded UPS.

Phill Terry, Technical Support Manager for The Tram Company said *'It is a satisfying and very much beneficial resolution for NTL to finally have a robust solution to the TEC UPS power supply provided and with the assistance of Harland Simon. NTL look forward to the next phase of power supply replacement. Harland Simon was able to provide support to NTL to provide a system capable of running not only original equipment but allow new items to be integrated. Harland Simon was able to facilitate a programme of change to occur during out of service hours, allowing the systems to be up and running for the next day!'*



A typical Harland ProtectUPS® - T upgraded UPS system incorporating new style modular inverters and DC rectifiers



A typical 3 hour autonomy new Lead Crystal® battery arrangement fitted on easy slide shelves and swing frame UPS for ease of service and maintenance



- » **Harland ProtectUPS® - T**
- » **Longlife UPS**
- » **High efficiency**
- » **Modular AC UPS**
- » **Network Rail PADS approved**
- » **Restricted space within enclosures**
- » **High performance Lead Crystal® batteries**

