

Trust Board Capital Business Case Briefing Paper

Date of Meeting:	23 rd June 2022
Subject:	Mid-Ulster Hospital – LV Mains Replacement Works
Presented by:	Mr Owen Harkin
Purpose/Action Required:	To gain business case approval
Background:	Mid Ulster Hospital provides a range of sub-acute hospital services and a Minor Injuries Unit. The hospital electricity is supplied by Northern Ireland Electricity via the main intake electrical switch room, which dates back to this era. The equipment is now classed as old and past the end of life. Maintenance and working with aged electrical equipment can be very dangerous, especially when the infrastructure is outdated and possibly not compliant with the latest safety guidelines. Replacement modern switchgear includes the latest safety features, protocols and procedures to help avoid injuries. Modern electrical equipment improves overall reliability by eliminating faults that may occur with older equipment and reducing the chance of unplanned power outages. Modern equipment results in greater availability of spare parts, making repairs and upgrades more affordable and feasible. Electrical switchgear aged over 30 years lacks modern technological capabilities. Over the past 30 years, power circuit breaker and protective relay technologies have undergone significant design improvements. Modern power circuit breakers now offer high fault-current withstand capabilities helping to reduce maintenance requirements and improve safety. The purpose of this business case is to replace the existing main electrical switch room equipment with new modern fit for purpose switchgear that is compliant with both BS7671 and HTM06 The capital expenditure required to undertake this work would be £280,187 with no positive or negative effect on revenue spend.



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Benefits:	This scheme will greatly improve the integrity of the mains incoming supply and the hospital electrical infrastructure at the source. Spare electrical connection points will be installed to facilitate future services reducing the need for electrical shutdowns. Energy costs will be improved with the replacement of the PFC unit to a modern equivalent will be realised. Service requirements will be greatly reduced due to the nature of the new Circuit Protective Devices (CPDs). The internal environment for maintenance staff will be greatly improved with service access spaces improved in line with Industry Standards Safety, comfort and overall morale for staff and service users will be improved by providing modern switchgear that can be serviced and tested in an appropriate space
Total Capital Costs:	£280,150
Affordability:	This scheme requires £280,150 of Capital funding which will be financed from Backlog Maintenance 2022/2023. No additional revenue costs are expected with these works.
Risks:	The existing electrical equipment does not comply with the current guidance and legislation, this scheme will address this issue. There are financial risks associated with this scheme. Capital funding availability is mitigated with the identification of backlog maintenance funding. Project exceeding budget costs is a concern in the current economic climate. The projected costs have taken this into account and the scheme finances will be closely monitored by the project manager. Delay to the project will have impact on the scheme costs however if approved the use of standard readily available equipment will minimise this risk. With any electrical scheme there is a risk of disruption of services with an impact on business continuity. These works will be carefully planned ensuring equipment is ready before any planned changeover to minimise shutdown periods. A site communications strategy will be in place to keep all site personnel informed.
Conclusion:	Implementing this scheme will ensure the Trust has a new electrical power supply and electrical switchboard that



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complies with current Regulations. This will provide the most up to date protection technology with spare ways for future additions. The installation will monitor the electrical energy usage for each part of the LV infrastructure.