NILSEN

PROJECT FACT SHEET

ROYAL PERTH HOSPITAL — HV UPGRADE STAGE 1

CLIENT: ROYAL PERTH HOSPITAL

Royal Perth Hospital is a major tertiary hospital within Western Australia's public health system, operating continuously and relying on highly resilient electrical infrastructure to support critical clinical and operational services.

The Stage 1 High Voltage Upgrade involved the replacement and upgrade of ageing HV infrastructure across the hospital site. The works were undertaken within a live healthcare environment where continuity of electrical supply was critical and outages required detailed planning and coordination.

Nilsen's scope included the replacement of four existing HV Ring Main Units (RMUs), associated HV cable replacements, transformer repairs and supporting low-voltage upgrades. New ABB SafePlus and UniGear switchgear was incorporated into the upgraded HV network.

A key challenge of the project was maintaining power to critical hospital infrastructure throughout the works. Two of the four RMU replacements were completed using temporary HV and LV infrastructure to provide a zero downtime solution, allowing the existing equipment to be safely isolated, removed and replaced while maintaining continuity of supply to affected hospital services.

The project required detailed staging, switching planning and coordination between Nilsen, hospital representatives and other stakeholders. Temporary supplies, HV switching, isolation requirements, cable works, equipment changeovers, testing and commissioning were carefully sequenced to minimise operational risk and disruption.

Nilsen's specialist HV personnel completed the installation, testing and commissioning of the new equipment, including integration with the hospital's existing electrical network. Particular consideration was given to protection, network configuration, equipment interfaces and the safe transition between temporary and permanent supplies.

Working within an operational hospital introduced significant access, safety and logistical constraints. Works were planned around the hospital's operational requirements, with strict controls applied to shutdowns, work areas and high-risk electrical activities.

The successful delivery of Stage 1 demonstrated Nilsen's capability to undertake complex HV infrastructure upgrades within critical, live environments, combining temporary power solutions, specialist HV expertise and detailed project planning to maintain continuity of essential services throughout the upgrade.