New Royal Adelaide Hospital, South Australia

<table>
<thead>
<tr>
<th>CUSTOMER</th>
<th>Nilsen</th>
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<td>LOCATION</td>
<td>New Royal Adelaide Hospital, South Australia</td>
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<tr>
<td>DESCRIPTION</td>
<td>Penske Power Systems has supplied and managed the installation of six diesel-powered MTU 20V 4000 DS 2650 generators, to deliver critical emergency power to the all-new Royal Adelaide Hospital</td>
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<td>OPERATIONAL DATE</td>
<td>April 2016</td>
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The new Royal Adelaide Hospital, located in Adelaide’s West End, is a $1.85 billion project that has been listed as the single largest capital investment project in the history of South Australia (and the third most expensive construction project in the world).

With a design blueprint based upon some of the world’s leading hospitals, the new RAH includes state-of-the-art information and communication technology (ICT) solutions to deliver the most technically advanced and environmentally sustainable medical facility in Australia.

When officially opened in 2016 by the Government of South Australia, the hospital will have the capacity to treat more than 400,000 outpatients and deliver overnight care to approximately 85,000 inpatients annually. The new Royal Adelaide Hospital will be home to over 6,000 staff.

Nilsen Australia was relied upon to power the large scale project, subcontracting all electrical and integrated communication services that are underpinned by MTU’s reliable Series 4000 engine.

**CONFIGURATION**

As part of its work with Nilsen Australia, Penske Power Systems supplied and installed six 20V 4000 DS 2650 diesel generators that will be instrumental in delivering standby power to the new hospital.

Specified for work in black start conditions, the innovative MTU configuration features best-in-class load acceptance, delivering 100 per cent capacity to the entire RAH site within 18 seconds. Importantly, the 3D-listed units deliver 2.08 MW each and boast fuel systems capable of extending to 72-hour intervals.

Housed within the hospital’s east and west plant rooms, each 21 tonne MTU unit features integrated exhaust, controls and silencer systems, ensuring the delivery of a combined output of 12.48 MW when required.

Importantly, the MTU gensets maintain critical operations at high ambient temperatures, and also comply with detailed earthquake requirements as part of the RAH’s Tier 1 disaster recovery hospital classification.

**FEATURES**

Due to the scope and size of the project, Penske Power Systems allocated a full-time site manager to service the project, providing complete engineering and project management to Nilsen.

Penske’s engineering team also completed a full equipment risk assessment and support for system integration, as well as building additional system protection features into genset controls.

For more information contact our Power Generation team on 1300 688 338.