

## Simulator to reduce costs at Liddell Power Station

Yokogawa Australia has been awarded a contract to build a simulator for Liddell Power Station, in the Upper Hunter Valley of NSW.

The simulator will enable the power station to train operators in all aspects of the plant's operation, replicate and investigate plant failures and test proposed plant modifications prior to implementation. It is expected to take 18 months to build.

“The most important feature of the simulator will be that it runs exactly the same software package as the real plant system – a CENTUM distributed control system installed by Yokogawa some years ago – and uses exactly the same configuration,” said Richard Porter, Yokogawa's Simulation Group Manager.

“This makes the simulator the perfect test and training environment for the control system. To the eyes of the operator, the control system appears to be totally identical to the real plant with operations and alarm events requiring identical attention, making it a very useful training tool. Operators can be trained in every aspect of the plant's operation, even those that only occur infrequently.”

Another significant benefit for the power station of utilising a simulator is that it will provide such a realistic representation of the plant that modifications to the control system are not only tested on the simulator, they are commissioned on the simulator. This can reduce commissioning and implementation costs quite dramatically.

Combined, these effects flow on to a reduction in plant downtime and significant savings in operating costs.

Yokogawa Australia is recognised internationally as a supplier of high quality simulators, having developed the technology that has become the industry standard. Since delivering its first simulator in 1985, the company has been commissioned to develop and install more than 30 projects around the world.

The Liddell Power Station is owned by Macquarie Generation, a state-owned corporation established in 1996 following reform of the NSW electricity system, and now Australia's largest electricity generator. The coal-powered station has four 500MW steam driven turbo alternators and each year produces approximately 10,000 GWhs of electricity, enough power for more than one million average Australian family homes.

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