A Yokogawa Commitment to Industry

vigilance™

Unified Operator Interface Enables Remote Operation
AGL Hallett & Somerton Power Stations, Australia

Location: Hallett, South Australia and Somerton, Victoria, Australia
Order Date: 2001
Completion: 2002
Industry: Power

About The Australian Gas Light Company

The Australian Gas Light Company (AGL) was established by private interests in New South Wales in 1837 to light the streets of Sydney with coal gas. Today, AGL is Australia's leading energy provider. AGL's wholesale and retail marketing businesses sell natural gas, electricity, and associated products and services.

Project Background

Electricity consumption is growing rapidly in southern Australia. In response to growing summer demand in South Australia, AGL built a power station in 2001 in Hallett, South Australia, and completed construction of another power station the following year in Somerton, Victoria. Both are peak power plants that will help reduce the likelihood of power blackouts and keep electricity prices stable during periods of peak demand.

The Challenge

To respond to these pressing needs, AGL required the following:

— Remote control and operation

The 12 gas turbines in the Hallett plant and the 4 gas turbines in the Somerton plant needed to be remotely controlled from an existing control center in Melbourne.

— Fast-track construction

Each plant construction project was placed on a fast-track three-month completion schedule so that they could be operational by the summer of 2002. All system equipment had to be delivered and installed within this timeframe.

— Flexible operation

The turbine control system had to have the capability to flexibly meet the intermittent power needs of a peaking power station.

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The Solution

In these projects for AGL, Yokogawa Australia cooperated closely with the Group's Singapore factory to develop and deliver a fully engineered control system on specification and on schedule.

For its Hallett and Somerton plants, AGL selected Yokogawa's CENTUM CS 3000 together with its Unified Operator Interface (UOI). The system platform in the UOI is the GE Fanuc CIMPLICITY Human Machine Interface (HMI) system, which fully integrates the controllers for the turbine and balance of plant (BOP) auxiliaries and uses the same screens/formats in both the turbine and BOP HMI displays. The CIMPLICITY HMI used in the UOI is a SCADA based design that fully supports AGL's requirement for remote operation capability.

For the Hallett plant, AGL also introduced an automatic turbine optimizer. This embedded system automatically schedules and selects turbines to flexibly meet peaking market demands.

System:	**CENTUM CS 3000 / UOI**
Scope: (Hallett)	**Interface to GE SPEEDTRONIC Mark V Turbine Controllers** **Balance of Plant (BOP) Control** **Interface to ALSTOM SCADA** **Interface to electricity market network for load dispatch**
Scope: (Somerton)	**Interface to Triconex Turbine Controllers** **Balance of Plant (BOP) Control** **Interface to electricity market network for load (NEMMCO) dispatch**

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