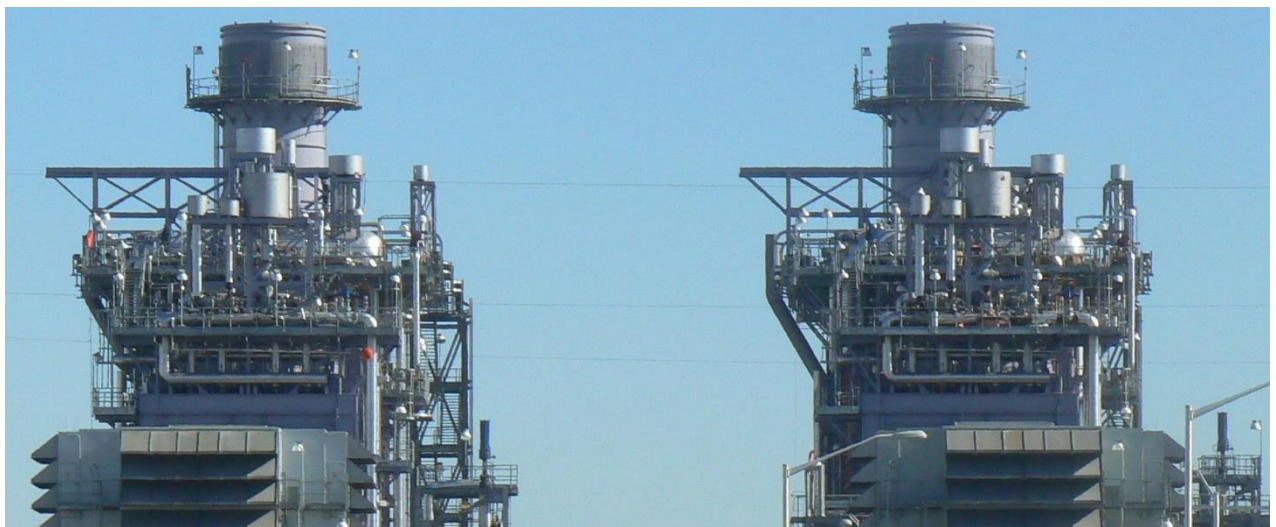


# Combined Cycle Plant Controls Capability



**Provecta** is a leading Australian controls services company specializing in design, implementation, commissioning, benchmarking and optimization of power plant protection, sequence and modulating control systems. Our experience extends through enhancement of controls systems for fast ramping and frequency response to advanced automation design concepts up to single pushbutton start and reduced-attendance operation. Our US Branch is in Illinois.

Our plant experience ranges from conventional gas and coal-fired boilers, through Combined Cycle and Cogeneration plant, to advanced super-critical once-through boilers up to 1000MW.

Projects have been undertaken throughout Australia, New Zealand, Asia and in the USA.

## **Provecta's Combined Cycle Plant experience includes:**

**Russell City Energy Centre** - Hayward CA (2x2x1 600MW Plant, Siemens Westinghouse 501FD CTG's). Provecta was engaged by Bechtel Power Corporation to:

- Provide specialist engineering advice on controls concepts and configuration for the modulating controls, sequence and protection systems, for the HRSG and balance of plant systems.
- Develop an integrated plant start-up testing and tuning program, for CGT, HRSG and STG start-

up activities including overall plant performance demonstrations and emissions testing.

- Develop an overall plant cold start operational sequence chart for use by plant Operators in conjunction with operational procedures.
- Provide on-site controls commissioning and tuning support during the plant start-up phase.
- Assist with day to day coordination of start-up activities.

## **Darling Downs Power Station** (3x3x1 620MW Plant, GE Frame 9 CTGs)

Provecta was engaged to provide the following consulting, engineering and operations support:

- Develop CTG proof testing procedures and assisted with initial proof testing;
- HRSG Drum level control tuning;
- Operating event investigations;
- Brine Concentrator plant commissioning, including review and upgrade of the OEM's control logic design, configuration and graphics implementation (GE MkVIe and Cimplicity HMI) and I&C commissioning including the development of ITP's.

## **Spalding Power Station** - Intergen, UK (2x2x1 890MW, GE F9 CGTs, VOGT HRSG, Hitachi STG)

- Performance investigations and control system modifications to optimise Steam Turbine Bypass system for fast startup and shutdown.

Should you wish to discuss any aspect of this training course, please contact our modulating controls expert, Mr Don Parker at the following contact details:



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