

# Case Studies

## Futureproofing Power Generation in the East Coast of Australia

**Customer:** Genuity

**Location:** Millmerran Power Station, Queensland, Australia

### Air Pre-heater Rotor Retrofit

#### Background

Millmerran Power Station, operated by Genuity, is a cornerstone of reliable energy supply on Australia's East Coast. Commissioned in 2002, the plant has a capacity of 850-880MW, enough to power over 1.1 million homes. It is also one of the most water-efficient coal plants in Australia, consuming 90% less water than conventional stations, due to its use of supercritical boiler technology and air-cooled condensers.

The Howden Air Pre-Heater (APH) is an essential part of the system, enabling heat transfer from the flue gas to the airtake to the boiler, saving 120MW of energy at peak load.

However, the high ash content of local coal has led to significant erosion of the rotors over the years, a critical component of the APH units. To maintain operational reliability and support long-term performance, Genuity needed a robust retrofit solution.

#### The Challenge

The existing APH rotor has suffered extensive wear, requiring costly annual inspections and repairs. To avoid unplanned outages and meet shareholder expectations, the rotor retrofit needed to be completed in under 60 days per unit, without compromising safety or performance.



### Air Pre-heater Rotor Retrofit

#### The Solution

The solution was to develop a modified rotor that can be retrofitted with the heater in place, overcoming the space and access constraints of the existing boiler structure.

Leveraging our global engineering expertise and long-term relationship with the customer, we offered:

- A fully integrated project team across design, manufacturing and installation.
- A commitment to safety and outage efficiency.
- Ongoing aftermarket support through an active Long-Term Service Agreement (LTSA).

#### Benefits

- **Extended plant life:** Supporting Millmerran's goal of providing a dependable electricity supply into the future.
- **Operational savings:** Elimination of unplanned outages and costly repairs.
- **Energy efficiency:** 120MW energy recovery per APH maintained.
- **Customer confidence:** Built on trust, transparency and technical excellence.
- **Future support:** Local Howden Service Centre positioned to deliver LTSA.



Whether you are planning a major retrofit or exploring long-term service agreements to extend the life of your assets, our team is here to help.

Get in touch with us today to discuss your plant's performance, reliability and sustainability goals.

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