

## Performance Management Fact Sheet

### Introduction

Synengco offers a range of services for the performance management of power generation plants through the combined use of its SentientSystem® software and specialised engineering skills.

These services combine remote monitoring with regular site visits to provide:

- Routine plant reporting;
- Real time plant and process monitoring for abnormal operation and/or performance;
- Root cause analysis of plant and process;
- Plant and process monitoring for overhaul planning; and
- Plant improvement investigations & feasibility studies.

### Routine Plant Reporting

Synengco provides standard performance reports tailored to your needs. The reports include (among other things):

- Gross generation;
- Net generation;
- Total fuel consumed;
- Heat rate (absolute, load compensated and ambient compensated);
- Component efficiency (% against standard);
- Component efficiency (in real terms);
- Analysis of results; and
- Recommendations.

### Abnormal Operation And/Or Performance

SentientSystem® technology enables Synengco to monitor plant operations and processes against a range of base cases. Deviations from normal operations are

detected and alerts sent via email, SMS, pager and operator interface.

The information provided on the alert includes:

- Time of event;
- Related equipment;
- Details of the alert; and
- Suggested corrective actions.

This service may be provided remotely and can be used for, among other things, tube leak monitoring, slag detection and unbalanced boiler operation.

### Engineering Investigations

Through a combination of SentientSystem® technology and engineering expertise, Synengco provides a range of engineering investigations including:

- Plant and process faults;
- Performance audits;
- Modifications;
- Overhaul effectiveness; and
- Process modifications.

The use of SentientSystem® for modelling, simulation and evaluating plant modifications gives you critical advantages by providing an auditable, precise analysis for root cause and what if analysis.

### Monitoring For Overhaul Planning

The simulation functionality and the ability to compare directly to previous overhaul cycle performance using SentientSystem® allows for the precise and detailed analysis of the unit performance through its overhaul and life cycles.

SentientSystem® allows direct comparison of unit and plant component performance pre and post overhaul. The additional resolution and precision of SentientSystem® allows for rapid and targeted evaluation of overhaul effectiveness and predicted future performance.

### Plant Improvement

The SentientSystem® ability to simulate plant and monitor actual performance to a precise component level provides the ability to quickly assess the impact on the whole of the process of proposed plant and process modifications.

Synengco professional engineering staff then finalize the investigation with a completed feasibility study including operations, maintenance and business analysis.

### The Payback Period

Synengco's technology effectively pays for itself. Clients have experienced payback periods ranging from 6 to 18 months.

### To contact us

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