RWE

Availability improvement of coal-fired fleet

Plant Assessment Study

Location South Africa

Client ESKOM

Expertise Plant operation, coal-fired generation, fleet optimization, benchmarking, availability assessment

Our Services

- Site investigations and expert interviews
- Review of plant outage statistics and maintenance measures
- Identification of availability improvement potentials
- Development of a detailed and prioritised action plan

RWE

Project description

RWE carried out an availability assessment of the coal-fired generation fleet of a Major Power Utility in South Africa.

A key aspect of our analysis was to conduct site investigations with our experienced engineers, collect necessary plant data and gather operator insights through plant staff interviews. Through evaluating specific areas of power station operation such as steam turbines, boilers, coal and ash handling, balance of plant and spare parts, we could determine if and how these installations influenced the overall plant availability. This was followed by a detailed analysis of outage statistics for the previous four years and evaluation of scheduled maintenance measures to determine current plant condition and availability. By utilising performance benchmarks RWE was able to draw direct comparisons with state-of-the-art power plants. In addition, RWE produced a detailed and prioritised action plan that would enable the Power Utility to implement remedial measures in areas that would most significantly improve plant availability.

Our assessment enabled the client to increase plant availability in line with the companies long-term target of 91%. Further, our advice helped the client to improve plant operations and optimise maintenance procedures.

South Africa's unlisted, state-owned electricity company, generates about 95 percent of the nation's electricity and about 45 percent of the electricity generated on the entire continent of Africa. Coal-fired generation produces 90 percent of South Africa's electricity.