

CASE STUDY

Compressor Fouling Discovered – Saving Cost and Time

Challenge

The EtaPRO M&D Center identified a drop in compressor efficiency on two gas turbines at a 2x1 Combined Cycle plant. Since the drop in compressor efficiency occurred on two separate machines around the same time, the issue was believed to be related to the intake.

Solution

It was determined that wildfires in the area caused compressor fouling due to the particulates in the air. The compressors were scheduled for cleaning at a time suitable to the plant's operating schedule.

Impact

Due to the advanced warning, the plant was able to recover the gas turbine performance. An analysis of the gas turbine output and heat rate indicated that the 1.5% reduced compressor efficiency resulted in an additional 200 Btu/kWhr heat rate and a capacity loss of 5 MW per gas turbine.

Estimated savings

\$150,000

RESULTS

Recovered **1.5%** compressor efficiency.

Gained an additional

200 Btu/kWhr

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