

CUSTOMER CASE STUDY

Power Generation Performance Monitoring

BKOAI combined real-time monitoring, troubleshooting guidance, and maintenance analytics to improve visibility into power-generation performance

Industry: Power Generation

GOALS

- Enable real-time asset monitoring and troubleshooting across power-generation systems.
- Support a transition from reactive maintenance to predictive planning.
- Bring operational and maintenance data together for a more complete view of plant performance.
- Help operators identify performance deviations and prioritize follow-up actions.

CHALLENGES

- Small performance deviations can increase operating costs in complex power-generation systems.
- Siloed operational and maintenance data make plant-wide performance analysis difficult.
- Identifying the causes of abnormal equipment behavior requires information from multiple sources.
- Reactive maintenance makes it difficult to address developing equipment issues proactively.

SOLUTIONS

- Deploy integrated dashboards to bring critical operating and performance information into one view.
- Use machine-learning anomaly detection to flag unusual equipment behavior for investigation.
- Provide root-cause analysis guidance to help operations teams investigate abnormalities.
- Connect operational and maintenance information to support troubleshooting and maintenance planning.

RESULTS

- Improved visibility into thermal-performance losses and operating deviations.
- Supported faster troubleshooting through access to integrated performance information.
- Supported predictive maintenance planning using equipment-condition insights.

EXECUTIVE SUMMARY

BKOAI combined real-time monitoring, troubleshooting guidance, and maintenance analytics to improve visibility into power-generation performance. Integrated dashboards bring operating and performance information into one view, machine-learning anomaly detection flags unusual equipment behavior, and root-cause guidance supports investigation. By connecting operational and maintenance information, the approach improves visibility into thermal-performance losses, supports faster troubleshooting, and enables predictive maintenance planning.

Creating a Unified Performance View

Small performance deviations can increase operating costs, while siloed operational and maintenance information makes plant-wide analysis difficult. The solution centralizes critical operating and performance information so operators can see asset condition and performance in a more complete context.

Anomaly Detection and Troubleshooting Guidance

Machine-learning anomaly detection flags unusual equipment behavior for investigation, while root-cause analysis guidance helps operations teams trace abnormalities using information from multiple sources. This supports faster investigation and helps teams prioritize follow-up actions.

Supporting Predictive Maintenance Planning

By connecting operational and maintenance information, the workflow improves visibility into thermal-performance losses and operating deviations, supports faster troubleshooting, and enables predictive maintenance planning using equipment-condition insights.

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