



Optimizing E&U assets with AI-powered technology

What are the challenges?

Utility companies are struggling with aging infrastructure and an aging workforce. They need to balance asset cost, performance and risk.

With assets aging, utility companies also face a workforce exodus where 40 percent may retire in the next five years. Knowledge retention about condition, maintenance and risks is a constant challenge. At the same time, utility companies are facing disruption due to demand changes from increasing efficiency and de-centralized production from renewable sources such as wind and solar.

Smart utility companies think differently. They are exploring new methods and tools that help minimize costs, optimize performance, as well as tools to help avoid asset-related risks.

How IBM IoT can help

Utility companies are increasingly aiming to take full advantage of artificial intelligence (AI)-powered technologies that can be incorporated into Asset Performance Management (APM) solutions. These AI-powered tools help optimize asset decision making. By providing advanced APM features, operations leaders, asset owners and risk professionals can help improve asset health, maintenance, lifecycle and overall strategy.

IBM's APM solution for Energy and Utilities is optimized for utility companies seeking to deliver reliable, safe, and uninterrupted service at a reasonable cost. Our solution is purpose-built for utilities with specific hierarchies, industry models and usability features. The solution is equipment agnostic, leverages IBM's AI heritage and is fully integrated into IBM® Maximo® and other leading EAM solutions based on IBM's decades of enterprise asset management (EAM) experience.

Specific capabilities cover the following:



Asset health. As the foundation for condition-based maintenance, includes monitoring asset health and failure prediction.



Asset monitoring. Enables AI-powered remote monitoring of critical assets with anomaly detection at enterprise-scale.



Maintenance optimization. Helps organizations improve repair strategy with AI-enhanced technician support, mobility, data integration, root-cause analysis and prescriptive guidance.



Asset lifecycle. Helps enable better asset replacement decisions with understanding of cost/value decisions.



Asset strategy. Provides visibility on operating risk and asset criticality.

Outcomes

IBM is engaging with countless utility companies to bring our AI-powered APM approach to the industry. Our ability to predict asset failure has a direct effect of System Average Interruption Duration Index (SAIDI) and Customer Average Interruption Duration Index (CAIDI), and affords the opportunity to schedule and plan rather than react. We can also help utility companies optimize their CAPEX versus OPEX spend, improve their deferred maintenance decisions, develop better short and medium term capital planning strategies and better prioritize unplanned work.

The savings are real. For example, recently a UK client has achieved £85 million in savings, while a US client has achieved up to a 20 percent reduction in unplanned work.

Learn more about IBM's APM for Energy and Utilities solution at: ibm.co/energy