Watson IoT™

Optimizing E&U assets with AI-powered technology

IBM

What are the challenges?

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

With assets aging, utilities face a workforce exodus where 40% may retire in the next 5 years. Knowledge retention about condition, maintenance, and risks is a constant challenge. At the same time utilities are facing disruption due to demand changes from increasing efficiency and de-centralized production (e.g., wind and solar).

Smart utilities are thinking differently. They are exploring new methods and tools that minimize costs, optimize performance, and avoid asset-related risks.

How IBM IoT can help?

Utilities are increasingly aiming to take full advantage of new 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 improve asset health, maintenance, lifecycle, and overall strategy.

IBM's APM solution for E&U is optimized for utilities seeking to deliver reliable, safe, and uninterrupted service at 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 Maximo and other leading EAM solutions based on IBM's decades of EAM experience.

Specific capabilities include the following:

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

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

Asset lifecycle optimization. Enables better asset replacement decisions with understanding of cost/value decisions.

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

Outcomes

IBM is engaging with countless utilities 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 afford the opportunity to schedule and plan rather than react. We can also help utilities optimize their capex vs 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. One UK client has achieved $85m in savings to date while one US client has achieved a 20% reduction in unplanned work.

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