IBM Maximo

Capturing renewable energy and asset reliability

The exponential growth of renewable generation demands a more advanced O&M strategy

IBM

Renewable energy: Meeting demand now and in the future

The exponential growth of renewable generation requires an equally advanced approach to asset management to improve availability and reliability.

Advanced technology for wind, solar, hydro and battery storage means more challenges when it comes to managing and optimizing these unique assets. For example, climbing wind turbines for maintenance work creates a different set of complexities than maintaining solar assets at ground level. However, a few key themes emerge:

- Solar and wind sites typically span very large, remote areas, making it more difficult to detect and identify issues.
- Technicians' work orders and routes must be well planned to limit "windshield time" and other downtime.
- Analyzing asset data and managing complex components must happen while also maintaining safety and meeting compliance standards.
- Utilities and asset owners struggle to maintain visibility into asset health.

Meet the challenges with connected data and industry expertise

To optimize each asset and deliver reliable, resilient service, today's operators need a single, integrated system infused with data and AI. IBM Maximo Application Suite handles all renewable asset classes enabling O&M teams to build maintenance strategies based on asset health and predicted outages. Organizations will also have full visibility and asset control for both utilities and asset owners who outsource O&M functions. The result: reduced downtime, costs and unnecessary spare part usage and significant business value:

Increase uptime

20%

Reduce maintenance spend

35%

Reduce travel time

30%

Increase production

25%

Put Maximo to work for you

IBM Maximo Application Suite, built on 30 years of market-leading asset management for energy and utilities, brings connected asset data and machine learning models to help utilities transform the renewables industry:

Embedded asset monitoring devices can provide real time inputs to **Maximo Monitor** for condition maintenance.

Field crews can be mobilized with **Maximo Mobile and Maximo Assist** with AI/AR and Expert Collaboration.

Cameras supporting **Maximo Visual Inspection** can provide alerts and detect anomalies.

Maximo Service Provider can support O&M customer contracts, capture work and resources used and facilitate customer billing details for non-owned renewable assets.

How a North American renewable energy company provides reliable wind and solar solutions

About the client: With wind and solar sites across the country generating over 4,000 megawatts (MW) of renewable energy, this client has been using Maximo to manage work and assets, keeping track of the various technologies, and shared knowledge across their workforce.

The role of Maximo in reducing risk to the reliability and security of renewable energy: This client deployed Maximo on the cloud throughout their owned and operated wind and solar sites to maintain a documented repository of work history, asset conditions, and regulatory flags.

For planners and schedulers, that means being able to bundle work by asset and location to optimize travel time and turbine climbs. For regulatory compliance it means traceability and visibility into inspection history and easier reporting for complex regulatory requirements.

How they use Maximo to educate their field technicians and improve fix rates: To help combat the challenges newer technicians face with wind and solar technologies, this client used custom fault codes in their work orders to capture failure, cause, and remedy, building a network of shared data and best practices for technicians to reference and utilize. With more efficient troubleshooting, technicians can spend less time searching for the right information to perform accurate corrective maintenance tasks.

Take the next step
Ready to lead renewable energy transformation with technology? Learn more about improving reliability with asset performance management.

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