Buzz Solutions Expands PowerAI Platform to Help Utilities Scale Solar Inspections

New visual AI capabilities help utilities analyze solar inspection data, detect defects and prioritize maintenance to improve performance

PALO ALTO, CA, UNITED STATES, March 24, 2026 /EINPresswire.com/ -- Buzz Solutions, an AI software company that enables a smart, stable, and resilient energy infrastructure, today announced an expansion of its PowerAI platform to support inspections of utility-scale solar assets.

As utility-scale solar capacity grows rapidly, operators are facing a new challenge: how to efficiently inspect and maintain vast installations spanning hundreds of acres and millions of panels. While traditional transmission and distribution (T&D) infrastructure inspections focus on delivering power reliably, solar introduces a dual objective: maximizing energy output while extending asset lifespan.

> "
> Solar is fundamentally changing how the grid operates, and it's introducing a new layer of operational complexity for utilities,"
> *Kaitlyn Albertoli, CEO and Co-Founder of Buzz Solutions*

With supply chain constraints making panel replacement more costly and complex, proactive maintenance is increasingly critical. Operators must quickly identify underperforming assets while preserving long-term panel health to maximize overall system performance and return on investment.

Today, drone programs used for solar inspections are generating massive volumes of RGB and thermal imagery that cannot be analyzed manually at scale. This is driving the need for automated solutions that can turn visual data into actionable insights.

The expanded PowerAI capabilities enable utilities to analyze inspection imagery using AI to detect thermal anomalies across PV panels, connectors, combiner boxes and inverters. Inspectors can also use PowerAI to manually identify and label visual equipment issues such as cracked panels, soiling and vegetation encroachment.

PowerAI enables teams to manage and analyze large volumes of inspection data by automating visual analysis and connecting insights directly into GIS, asset management and maintenance systems. By transforming imagery into actionable intelligence, utilities can identify issues faster, prioritize maintenance and improve overall asset performance.

PowerAI for Solar: AI-Enabled Inspection Workflows for Solar Asset Management

The expanded solar capabilities extend PowerAI's end-to-end inspection workflows, from ingesting drone-collected data to delivering actionable insights for operations teams. The platform combines visual data management, geospatial mapping and automated thermal defect detection to support proactive, performance-driven maintenance.

Key capabilities include:

• AI Detection of Solar Defects: Identify thermal anomalies

• Inspectors can also use PowerAI to identify and label cracked panels, damaged cells, connector failures and other performance issues using RGB imagery.

• Geospatial Asset Mapping: Map solar panels and equipment using geospatial analytics and Esri-based tools.

• Automated Analysis of Drone Data: Process large volumes of inspection imagery collected by drones equipped with RGB and thermal cameras.

• Actionable Reporting: Export results into PDF, JSON or Excel and integrate insights into GIS and asset management systems.

"Solar is fundamentally changing how the grid operates, and it's introducing a new layer of operational complexity for utilities," said Kaitlyn Albertoli, CEO and Co-Founder of Buzz Solutions. "This isn't just about adding more generation, it's about managing performance at scale. Utilities need modern, data-driven approaches to ensure these assets are delivering the energy output the grid now depends on."

PowerAI enables teams to manage and analyze large volumes of inspection data by automating visual analysis and connecting insights directly into GIS, asset management and maintenance systems. By transforming imagery into actionable intelligence, utilities can identify issues faster, prioritize maintenance and improve overall asset performance.

"For utilities, the challenge is the sheer volume and complexity of visual data being generated from inspections," said Vikhyat Chaudhry, CTO and Co-Founder of Buzz Solutions. "PowerAI applies advanced visual intelligence to RGB and thermal imagery, automatically detects thermal defects, and integrates those insights directly into existing utility systems allowing inspection workflows to scale efficiently.

Proven Impact Across Scaled Inspection Programs

Early deployments of PowerAI have demonstrated the ability to reduce manual image review and accelerate inspection timelines, enabling faster issue detection and more effective maintenance prioritization across large-scale infrastructure.

The solar inspection capabilities build on Buzz Solutions' broader visual AI platform used across transmission, distribution and substation infrastructure. By extending PowerAI to solar assets, utilities can manage inspection data across multiple infrastructure types within a unified system, reducing fragmentation and improving operational consistency.

More information about Buzz Solutions' solar inspection capabilities is available here.

About Buzz Solutions
Buzz Solutions safeguards the world's energy infrastructure with an AI-powered predictive analytics platform for visual infrastructure inspections. The company enables field teams to prioritize and perform maintenance in a timely manner, reducing the likelihood of wildfires, forced shutdowns, and power outages resulting from failed grid infrastructure. Buzz also enables utilities to monitor substation infrastructure for security, safety, and high-energy events. Buzz works with several large utilities across North America, including the New York Power Authority and Southern California Edison. The company is backed by GoPoint Ventures, Blackhorn Ventures, and MaC Venture Capital. Buzz was established and is headquartered in Palo Alto, California. For more information, visit www.buzzsolutions.co or follow Buzz Solutions on LinkedIn.

Peter Moran
Indicate Media
peter@indicatemedia.com