

Keeping critical infrastructure equipment operational and avoiding unplanned outages is essential for meeting your residential and business customers' electricity demands and regulatory requirements.

Mitsubishi Electric Power Products, Inc.'s (MEPPI) Power-I<sup>®</sup> platform leverages the power of visual asset intelligence to provide advanced monitoring, real-time intelligence, and insight into critical assets that ensures reliability, improves security and employee safety, and reduces operations and maintenance costs.

## DEVELOPED WITH UTILITY CUSTOMERS, FOR UTILITY CUSTOMERS

Designed and developed in close collaboration with MEPPI's electric utility customers, Power-I®

combines state-of-the-art computer vision technology with advanced machine learning to inspect, monitor and analyze visual and thermal data from critical facilities, systems, and equipment.

The Power-I<sup>®</sup> system gathers and analyzes data to detect and report on a wide range of events in real time, employing fixed and mobile sensor payloads that include:

- Fixed and pan tilt zoom (PTZ) cameras that utilize both visible and infrared sensors
- State-of-the-art autonomous, mobile robots equipped with sensor payloads that perform user-scheduled patrols to 'walk" the grounds and provide ground truth data







Visual Asset Intelligence

You set the parameters to determine how Power-I<sup>®</sup> monitors the facility and what it reports:

- Power-I<sup>®</sup> integrates with fixed and PTZ cameras that continuously monitor facilities and equipment for events like changes in equipment condition or physical damage, abnormal readings on analog gauges, oil leaks, or animal or human intrusion.
- Thermographic, infrared cameras monitor equipment operating temperatures and can detect other incidents like human or animal intrusion and nearby fires.

## **KEEP A CLOSE EYE ON SUBSTATIONS** WITHOUT ROLLING TRUCKS

You create and schedule autonomous tours of critical assets to collect both visible light and thermal imagery. The Power-I<sup>®</sup> system then utilizes powerful computer vision and AI models to analyze the data and to detect anomalous conditions, faults, defects and potential changes for concern. Examples may include verifying oil levels inside bushings, an analog gauge reading that indicates a change in pressure or temperature outside normal ranges, or an animal intrusion onto substation grounds. When Power-I<sup>®</sup> detects a potential issue, you receive a real-time alert so you can program an on-demand tour for visual confirmation and dispatch personnel to the substation if necessary.



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## VIRTUAL MONITORING THAT DELIVERS REAL, QUANTIFIABLE BENEFITS

Power-I<sup>®</sup> delivers real-time monitoring and insight into critical substation assets that:

- Decrease O&M expense by reducing onsite inspections.
- Enable you to respond proactively to events and equipment problems
- Reduce frequency and duration of unplanned service outages
- Help protect equipment and extend its useful life
- Enable more productive, cost-effective use of personnel
- Support employee safety efforts by reducing the exposure of employees to dangerous environments
- Provide wide range of real-time data to guide and inform maintenance and other planning decisions

## **OTHER BENEFITS**

- Full integration with innovative sensor platforms and industry standard protocols including: FLIR A310 f, A310 PT, A500/700 thermal and visual light cameras, Boston Dynamics SPOT<sup>®</sup> Robot with Spot CAM+IR and ONVIF Profile S
- Customizable to any size installation: Install just one sensor platform or scale your Power-I system to support a centralized enterprise configuration
- Engineered with Mitsubishi Electric's 30+ years of electrical substation design, construction and support expertise