



DRONE
FLIGHT
SERVICES

NATIONWIDE AERIAL DRONE INSPECTIONS & MAPPING



SOLAR PANEL ASSETS & DISTRIBUTION



AERIAL DRONE INSPECTIONS ON SOLAR FARMS AND ARRAYS

Drone cameras offer many advantages for rooftop solar panel inspectors as well as operators of expansive solar farms. In addition to being able to clearly view temperature anomalies on a crisp thermal image, drones can be used to scan installed solar panels during normal operation across large areas within a short time frame, allowing problem or suspect panels to be isolated quickly, and readying them for remedial action to keep energy production at optimum levels.

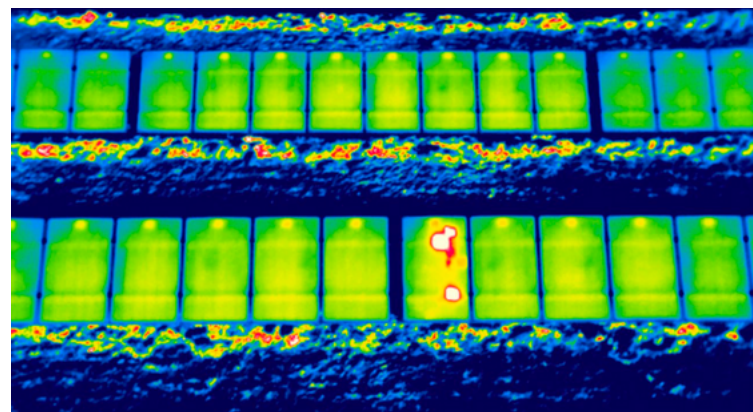
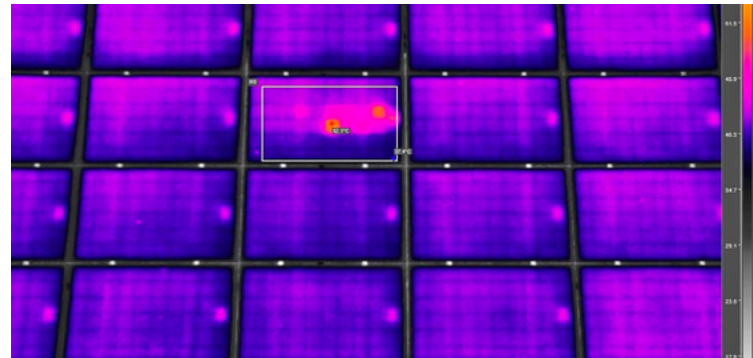
FAULTS DETECTED USING AERIAL THERMAL IMAGING

Drones provide a comprehensive look by delivering accurate imagery of a solar plant in significantly less time, and with greater accuracy than it might take for a handheld inspection. Drones are bringing airborne analytics to utility- scale solar operations like PV equipment inspections, resulting in strong time and cost savings. Further, drones and the sophisticated software that powers them are transforming operations and management practices for commercial solar companies.

MODULE FAULTS: These include individual hot spots on the cells, diode failures, shattered or dirty modules, coating and fogging issues, and junction box heating.

STRING AND SYSTEM FAULTS: Wiring issues (reversed polarity, frayed cables), charge controller issues, and inverter and fuse failures.

RACKING AND BALANCE OF SYSTEM: These are major issues with how the modules are mounted. Drones are also useful in spotting major site issues, such as vegetation management, poor drainage, and soil erosion underneath the racking.



DRONES FOR SOLAR SURVEYING, PANEL INSTALLATION & INSPECTION



PANEL INSPECTION ON SOLAR FARMS

Solar panels often overheat, go offline, or require maintenance due to excess dust, scratches or mechanical deficiencies. It's time-consuming and unreliable to inspect them from the ground. Improve team efficiency on site by conducting drone-based thermal inspections from the sky in minutes. Generate thermal maps and quickly detect broken photocells in panels faster than ever before.

SURVEY & MAPPING PROPERTY FOR SOLAR FARM PROSPECTING

In the competitive world of solar farm prospecting, it's challenging to generate purchase bids quickly. By surveying land and creating digital terrain models with drones, you can cut this process down days, instead of weeks. The Result: faster turnaround times and a leg up on your competition.

Utilizing drones in the construction of a solar farm facility ensures you will meet benchmarks throughout the project's duration. Our software platform creates a searchable system of reports that can be referenced to monitor the sites' development. These reports are delivered as frequently as desired and are available during each stage of the process. Remotely monitor earthwork progress and rack volume progress to stay on track. Compare historical site data to current numbers from the field to quantify install progress and evolution through reports.



TAKING ADVANTAGE OF ARTIFICIAL INTELLIGENCE FOR FASTER INSIGHTS

ConnexiCore AI-enabled software allows solar PV systems to adopt drone technology for efficient and accurate inspections. Utilizing ConnexiCore Cloud inspectors can review and process hundreds of thousands of aerial images. It then classifies and prioritizes 100% of all anomalies, and provides the exact onsite location of each anomaly to be addressed.

About RSI: Since 1982, RSI has provided innovative technology solutions, advanced professional services and fully automated solutions for effective business workflow. With RSI, clients realize that relationships matter, and our quality is embedded into our culture. Through our proven Assess-Remediate-Maintain process, RSI helps clients manage complexity and drive a return on your IT investment. We serve the enterprise with proactive cyber security solutions, custom software development for business process improvement, and advanced IT operations to create greater efficiencies. RSI uniquely supports remote data collection through advanced drone flight services.