

# Frequently Asked Questions about drone inspections over solar assets

## 1. Are You Licensed And Insured?

Yes, Simply Drones works with professional drone pilots that are trained and certified under the FAA (Federal Aviation Administration) Part 107 remote pilot certificate. We hold a 1 million dollar liability insurance.

## 2. Which Drones Do You Use For PV Inspections?

We currently use the DJI M210 & DJI M600 for our thermography inspections, these two drones are flexible in regards to the sensors you can use for these kind of applications. The DJI M210 even allows us to have up to three cameras at the same time!

## 3. How Many MW Have You Inspected And How Often Do You Find Damages On These Sites?

Since its inception, Simply Drones has inspected over 12MW of solar assets spread around Minnesota, Wisconsin, and Iowa. In general, we find damage on almost every Aerial Thermography Inspection. We identify the cause behind each anomaly and the overall impact on each system.

## 4. What Kind Of Damages Can You Identify And How Do You Spot Them?

We have the ability to identify up to 36 different anomalies. These anomalies can be caused due to problems in things such as: hot spots, delaminations, shadowing, stringing, the tracker and inverter and even soiling issues. These anomalies can be detected optically in a millimeter range with drones. We use specially trained algorithms to sift through thousands of images in order to obtain this data.

## 5. How Do You Analyze The Data You Gather? Does It Have To Meet Any Standards?

There are different analysis tools on the market we have access to depending on each project scope and how suitable their solutions are for the case at hand. To meet our standards and our clients' we use technologies that adhere to the IEC TS 62446-3:2017 standards for Aerial Thermography.

## 6. What Do You Deliver With An Aerial Thermography Service?

With our Aerial Thermography service, you will get a digital twin of the asset and an actionable report with the list of anomalies found, their location as well as the technical and financial impact of these anomalies over the asset.

This allows your team to work smarter by deploying your technical team to solve the irregularities, instead of sending them to identify if there is an issue, besides keeping an excellent record of the asset's performance.

## 7. Is There Any Other Benefit Of Aerial Thermography Besides Boosting The Inspection Speed?

Besides reducing your inspection duration, you are setting up your operations for success. You do this by reducing human errors during a repetitive process, by having higher inspection accuracy and performance, as well as having the access to long-term data maintenance. Having access to long-term data will help support your operations along with the asset's life, when commissioning the asset, selling it or pursuing warranty claims.

## 8. Can Owners Of A Photovoltaic System Buy Their Own Drone And Use It To Inspect The System Themselves?

Yes, but it is not very economical. The equipment that they would need to invest in is expensive, becomes obsolete after a short period of time and would most likely be underutilized due to the fact that it is exclusively being used for a few locations only. In the case of large portfolio PV companies, things may differ. However, they often face logistical and legal challenges.

## 9. What Other Services Does Simply Drones Offer In The Solar Industry?

From solar site surveys and design, through construction, commissioning and its operating life, Simply Drones can support your solar projects in every step with:

1. Site selection and feasibility analysis
2. Concept Designs
3. Construction Monitoring
4. Asset inspections