



# THERMAL SOLAR ASSESSMENT

VISUAL & THERMAL DOCUMENTATION REPORT

08 May 2026  
Camden, North Carolina

## **PROJECT OVERVIEW**

This thermal solar assessment was conducted by AGL Drone Imagery LLC utilizing aerial thermal, RGB visual, and zoom imaging technologies to visually document the observable condition and apparent operational consistency of the inspected residential rooftop solar panel system located in Camden, North Carolina.

The inspection was performed during full daylight solar loading conditions at approximately 1345 EST under favorable environmental conditions for thermal observation and visual inspection.

The purpose of this assessment was to provide the homeowner with current visual and thermal documentation of the roof-mounted solar installation for maintenance awareness, operational visibility, condition documentation, and future reference purposes.

## **MISSION CONDITIONS**

- Location: #####, Camden, North Carolina 27921
- Inspection Time: Approximately 1345 EST
- Aircraft Platform: DJI Matrice 4T
- Imaging Methods:
  - RGB Visual Imaging
  - Infrared Thermal Imaging
  - Zoom Visual Inspection Imaging
- Environmental Conditions:
  - Temperature: Approximately 81°F
  - Humidity: Approximately 54%
  - Wind: Approximately 7–10 mph
  - Gusts: Up to approximately 18 mph
  - Visibility: Approximately 10 miles
  - Sky Conditions: Predominantly clear / full sun conditions

### **Flight Profile:**

- Operational inspection distances approximately 20–50 feet from target surfaces
- Maximum operational altitude approximately 100 feet AGL



## **ASSESSMENT OBJECTIVES**

The objective of this inspection was to visually assess the apparent operational consistency of the residential solar panel system through aerial thermal and RGB imaging methods.

Thermal imagery was utilized to identify apparent temperature inconsistencies, abnormal heat signatures, or visible thermal anomalies that may warrant additional review or maintenance consideration requiring additional review or maintenance consideration.

High-resolution zoom imaging was additionally utilized to visually inspect panel surfaces, mounting hardware, and overall observable exterior condition.

## **SUMMARY OF FINDINGS**

No significant thermal anomalies were visually identified during this assessment.

Observed thermal patterns appeared generally consistent across the inspected solar panel system during the environmental and operational conditions present at the time of inspection.

No visually apparent abnormal heat signatures, irregular thermal concentrations, or observable panel inconsistencies were identified during aerial inspection operations.

RGB and zoom imagery additionally indicated the inspected panel surfaces and visible mounting components appeared to be in generally good observable condition at the time of inspection.

This report is intended to provide visual documentation, homeowner maintenance awareness, operational visibility, and future condition reference documentation.

## **IMPORTANT LIMITATIONS & DISCLAIMER**

Thermal imaging identifies apparent temperature differences and visual anomalies only and does not independently diagnose electrical, structural, mechanical, or engineering conditions.

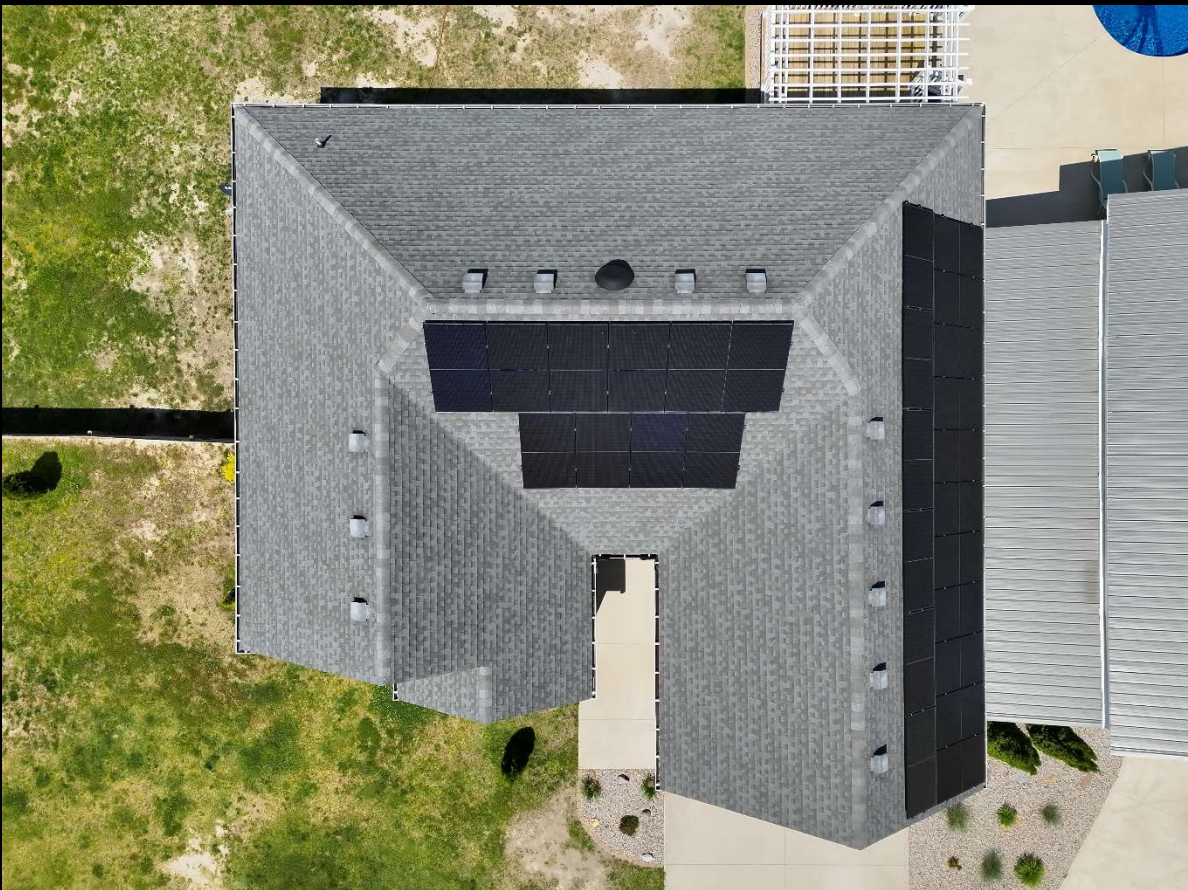
This report is intended for visual reference, homeowner documentation, maintenance-support awareness, and operational visibility purposes only.

Environmental conditions including solar loading, surface materials, weather conditions, panel angle, reflectivity, and operational system state may influence thermal appearance and interpretation.

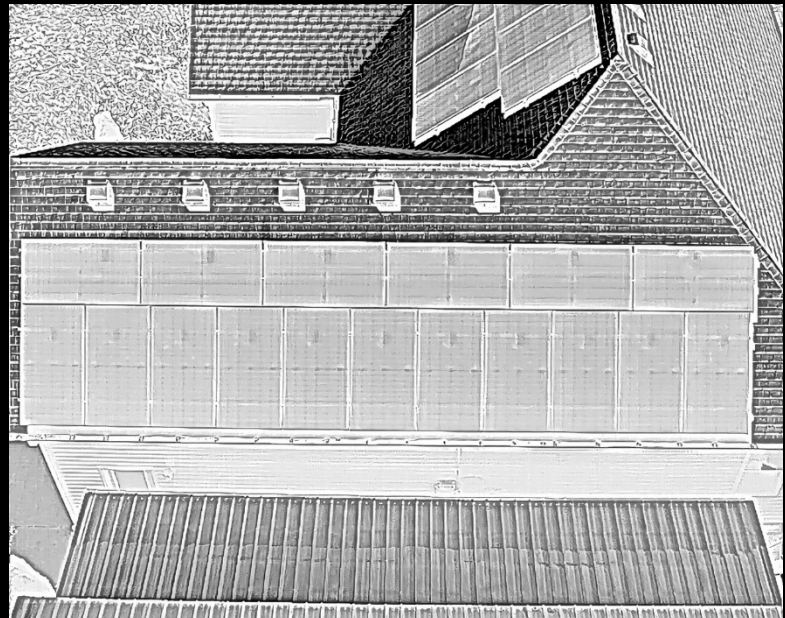
No warranty or guarantee of future system performance is expressed or implied.

Further evaluation by qualified solar, electrical, roofing, or engineering professionals may be recommended if future concerns arise.

# VISUAL INSPECTION IMAGERY (Overview)



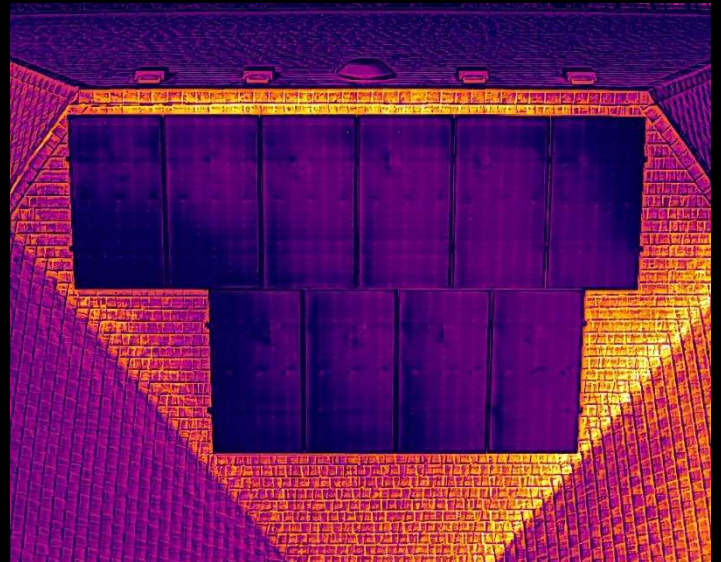
# VISUAL & THERMAL INSPECTION IMAGERY



# VISUAL & THERMAL INSPECTION IMAGERY



# VISUAL & THERMAL INSPECTION IMAGERY



## **FINAL OBSERVATIONS**

No significant thermal anomalies or observable irregularities were visually identified during this aerial visual and thermal assessment under the environmental and operational conditions present at the time of inspection.

Observed thermal behavior across the inspected rooftop solar panel system appeared generally consistent during daylight solar loading conditions at the time of data collection. RGB visual, thermal, and zoom imagery additionally indicated no visually apparent physical inconsistencies or observable panel abnormalities during inspection operations.

This report is intended to support homeowner documentation, maintenance awareness, operational visibility, and future condition reference purposes.

Thermal imagery identifies observable temperature differences and visual anomalies only and does not independently diagnose electrical, structural, roofing, or engineering conditions.

## **PREPARED BY**

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FAA Part 107 Certified Remote Pilot

Data Collection Date: 08 May 2026

Thermal and visual imagery provided for documentation and observational reference purposes only.

