

Solar AI Platform — Project Report (Starter)

Project: Test again (ID: 9)

Address: Testing address

Project Assets

[photo]



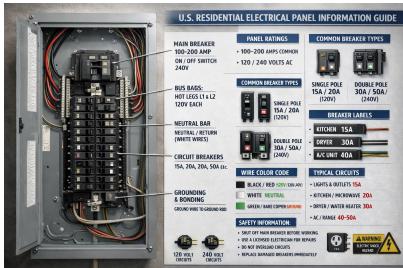
roof_20260101_191031_466567_two image.jpg

[View Full Size](#)

[photo]

panel_20260101_192042_566414_c06e0eb6-2b

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Analysis Results

X Electrical: FAILED

Unsafe to install solar on current electrical system

Action required: Electrical panel upgrade needed

X FAILED

Safety Score: 68 / 100

9.6kW system requires 63A breaker on 100.0A panel

System Details:

- Planned Solar System Size: 9.6 kW
- Main Panel Rating: 100 A
- Main Breaker Rating: A
- Solar Breaker Required: 63 A
- Phase Type: Single
- Voltage: 230 V

Key Findings:

- X Panel capacity exceeded by 43A - UNSAFE
- ■ Panel age unknown - inspection recommended
- ■ Solar breaker (63A) is 63% of panel rating - consider panel upgrade

Recommendation:

CRITICAL - Panel capacity exceeded by 43A Violates NEC 120% rule - installation would be unsafe and illegal Upgrade panel to 185A+ OR reduce system to 3kW

SHADING Analysis

Summary: 1 roof plane(s), 1 obstruction(s)

Overall Shading Level: **Medium** (Avg 14.6% loss)

• Main Roof

Shading Level: **Medium** (14.6% annual loss)

Expected Production: **Good**

Power loss during strongest sunlight hours (10AM-4PM): 14.6%

Recommendations:

- Moderate shading - consider obstruction trimming
- Most affected time: 14:00 - avg 14.6% shaded

INFO - RECOMMENDATION:

Moderate shading present. Site is suitable for solar with expected performance reduction.

COMPLIANCE Analysis

Compliance Status: FAIL

Score: 65/100

■ Compliance Check FAILED - Score: 65/100. Design has 1 critical violation(s) that must be fixed before proceeding.

Issues Found (2):

• Edge Setback Requirement

[HIGH]

Roof: Main Roof

Issue: Panels are 0.5m from edge (minimum: 0.9m)

Fix: Increase offset_from_edge to 0.9m or greater

• Fire Pathway Width

[MEDIUM]

Roof: Main Roof

Issue: Edge clearance (0.5m) may not provide adequate fire pathway

Fix: Increase edge offset to 0.9m for fire safety

Checked 1 of 1 roof plane(s) with layouts

ROOF_RISK Analysis

Roof Risk: SAFE

Risk Score: 0/100

Survey Information:

- Roof Age: 0-5 years
- Roof Type: Tile

Key Risk Factors:

- Roof appears to be in good condition

Recommended Actions:

Action: Proceed with solar installation

Reason: Roof is in good condition with no significant issues detected

Next step: Schedule installation at your convenience

Detailed Image Analysis:

Image 1 — Findings



No visible cracks, rust, corrosion, water damage (staining/darkening), or major structural damage (sagging/holes) are detectable from the provided aerial image.

The primary roof sections of the main L-shaped building appear to be low-slope or flat, consistent with a membrane roof type (e.g., EPDM, TPO, modified bitumen). There may be some small pitched sections with shingles. A very large tree significantly overhangs and casts heavy shade over a substantial portion of the roof, which will negatively impact solar panel efficiency. This tree would likely require significant trimming or removal for optimal solar performance.

The resolution and aerial angle of the image limit the ability to detect subtle roof issues such as minor surface cracks, sealant failures, or granule loss on potential shingle sections.

Roof type identified: Membrane/Flat roof (with possible shingle sections)
Recommendation: A thorough, on-site inspection by a qualified roofing and solar professional is essential to confirm the roof's exact type, structural integrity, identify any hidden or subtle damage, and accurately assess the impact of tree shading before any solar panel installation.

Tree trimming or removal should be considered to maximize solar potential.