



● BEFORE THE THERMOGRAPHER ARRIVES

Electrical IR survey *prep checklist.*

A survey is only as good as the conditions it is run under. Have these in place before the scan so it is safe, valid, and defensible — and so the trip is not wasted on gear that is de-energized or lightly loaded.

01 / LOAD Operating conditions

- ✓ Equipment **energized and under load** — minimum 40% of rated, closer to full is better. No current means no heat, which means no finding.
- ✓ **Representative production load**, not a light idle state that hides a real fault.
- ✓ Running long enough to reach **thermal equilibrium** before the scan.
- ✓ **Load in amps recorded** at each asset, so findings can be load-corrected and trended.

02 / ACCESS Scope & entry

- ✓ **Equipment list with IDs and criticality** ratings, so the route is planned, not improvised.
- ✓ Covers opened by **qualified electrical staff**, or **IR windows / ports** already installed.
- ✓ Clear **physical access** — ladders, lifts, and cleared work space where needed.
- ✓ **Keys, escorts, and lockout coordination** arranged, and someone who knows the gear on site.

03 / SAFETY PPE & arc flash

- ✓ **NFPA 70E governs**. Energized-work permit in place where required.
- ✓ **Arc-flash boundary respected**; approach limits known before any cover comes off.
- ✓ Correct **arc-rated PPE** for the task and incident-energy level.
- ✓ Scan through **IR windows** to image energized gear without opening it and keep the technician out of the boundary.
- ✓ **Only qualified persons** open or work near energized equipment.

04 / RECORDS Ready to document

- ✓ **Single-line diagrams and panel schedules** available.
- ✓ **Prior reports and thermal baselines** pulled for comparison.
- ✓ **Ambient, wind, and reflected temperature** ready to note per location.
- ✓ **Emissivity plan** for the surfaces being measured.
- ✓ **Corrective-action workflow** ready to route and track every finding.

THE ONE RULE THAT DECIDES THE TRIP

Scan it live, or don't call it healthy. A de-energized check will pass connections that are quietly failing under load, because high-resistance faults only reveal themselves as heat when current is flowing. If the equipment cannot be brought to representative load safely, reschedule rather than certify a clean image.