

Infrared Inspection

Effective Predictive Maintenance

Infrared Inspection (IR) is a diagnostic tool that can be used to help identify conditions that cause outages and equipment damage. IR testing is based on the fact that a good structural bond is a good thermal bond. In other words, loose connections cause heat. Because nearly all electrical components get hot before failure, IR inspections are a safe and cost-effective way for utilities to understand the operating condition of assets and implement or compliment a predictive maintenance strategy.

A properly executed IR inspection program can help utilities achieve reliability and safety goals by:

- ✓ Aiding in the prevention of power interruptions
- ✓ Helping to protect expensive equipment
- ✓ Providing cost-effective preventive maintenance
- ✓ Enhancing critical circuit inspections
- ✓ Reducing potential safety hazards

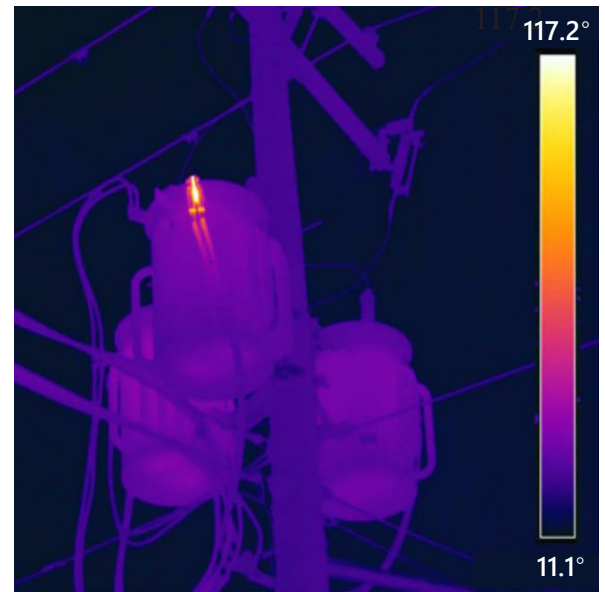
Logsys Power Services inspection programs are designed to help lower the costs, reduce the risks, and improve the performance of T&D systems. The IR inspection program is supported by our commitment to safety, training, quality workmanship, and the effective use of technology.



Commonly Inspected Components

Logsys Power Services specializes in the inspection of overhead (OH) and underground (UG) distribution, transmission, and substation systems for utility customers.

- Transformers
- Switches
- Bushings
- Reclosures
- Busses
- Fuses
- Capacitors
- Regulators
- Clamps
- Risers
- Arrestors
- Connectors
- Splices
- Elbows
- Substations
- Padmount transformers
- Switchgear
- Manholes / Vaults



Inspection Reports and Data Deliverables

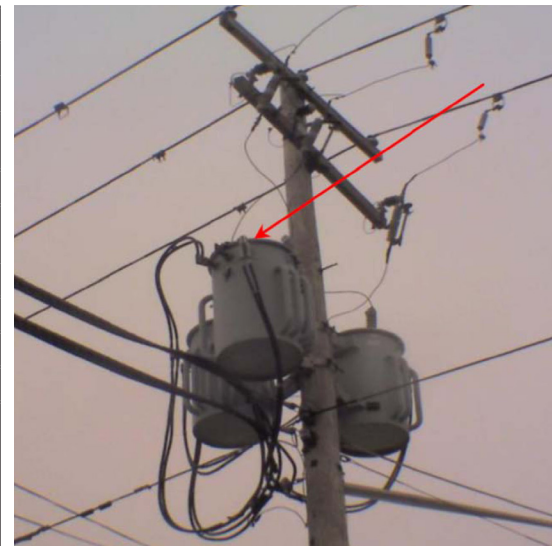
Using high-resolution IR camera technology, highly-trained Logsys Power Services technicians quickly and accurately scan power lines and associated equipment. A Level III Certified Thermographer (the highest level of infrared certification) provides detailed, customized reports that include:

- ✓ Visible light image of hotspot
- ✓ Thermal image of hotspot
- ✓ Temperature rise
- ✓ Location information
- ✓ Equipment identification information

Inspection data can be provided in a number of other electronic formats that can be used to feed various target systems of utilities.

Area	Western	Hot Equipment	Transformer Secondary Bushing
Finding #	1	Pole Number	645
Substation	Elmwood	Location	
Feeder	456-H2	IR Technician	Brian Scotch

Image Date	
Image Time	2:47:17 PM
Image file name	IR_0263.jog
Image Camera Type	Thermacam P620
Emissivity	0.90
Atmospheric Temperature	10°
Object Distance	40.0 ft
Ar1 Max Temperature	71.05°
Ar2 Max Temperature	6.16°
Delta Temp. Value	67.11°
Severity Criteria (ΔT):	
Minor (A): -12 to -8.3°	
Intermediate (B): -7.7 to 17.2°	
Serious (C): 17.7 - 57.2°	
Critical (D): >57.7°	



The Logsys Difference

Our field technicians and modular inspection system allows us to mobilise quickly for customer projects, and our advanced data collection and processing methods allow us to handle large projects efficiently. Certified Level III Thermographers perform all training, reporting, and project management to ensure the highest levels of accuracy in both data collection and delivery.

To contact your local Logsys Power Services professional, call (08) 9300 2950, or email enquiries@logsys.com.au.