

# IR Electrical System Survey Checklist



While no one argues the importance of an Infrared Survey of a facility's electrical system, this project can sometimes be labor intensive and time consuming.

Based on 30+ years of experience, Jersey Infrared Consultants offers this information to help you plan for your next Infrared Electrical System Survey.

## Pre Planning for The Infrared Survey

- **Schedule the survey on the "right" day.** Be certain qualified manpower is available to open/close electrical equipment, allowing for vacation and training assignments. Verify the electrical circuits to be surveyed will be under normal load.
- **Secure access to all areas.** Notify all key personnel or tenants of the date of the infrared survey and how their area will be affected. Be sure keys and/or access codes are available for all secure areas.
- **Prior planning saves time.** Refer to the routes, or order in which equipment was surveyed, from past surveys. If unavailable, obtain a list of equipment to be surveyed and its location. Logistics of moving from location to location and any changes in load demands occurring during the day should be considered.
- **Install Infrared Windows.** For a one-time installation, the payback will be improved efficiency and increased safety for each survey.

Jersey Infrared Consultants perform hundreds of Infrared Electrical System Surveys each year. Contact us with any concerns or for suggestions on how to make your Infrared Electrical Survey easier and more efficient.

## Special Areas of Interest and Time Schedules

*Please remember that this is a guideline and the final decision of the list of equipment to be surveyed and the frequency is the responsibility of the your firm's personnel.*

### Incoming Equipment

Incoming Lines	<ul style="list-style-type: none"><li>• Survey every 6 months.</li><li>• Adjust the schedule after reviewing any patterns that develop.</li></ul>
Substations	
Transformers	
Overhead Lines	

### Main Equipment

Substations	<ul style="list-style-type: none"><li>• Survey every 12 months.</li></ul>
Transformers	
Motor Control Centers	<ul style="list-style-type: none"><li>• Survey more frequently depending on equipment history, problems located and environmental concerns.</li></ul>
Switchgear	

### Distribution Equipment

Lighting Panels	<ul style="list-style-type: none"><li>• Survey every 12 months.</li><li>• Prioritize equipment by impact on operations, safety hazards or demand loads. Revise the frequency of inspection as operations change or patterns develop.</li></ul>
Distribution/Power Panels	
Circuit Breakers	
HVAC Equipment	

### Emergency Equipment

Automatic Transfer Switches	<ul style="list-style-type: none"><li>• Survey every 12 months.</li></ul>
Battery Banks & UPS	
Fire Pump Panels	<ul style="list-style-type: none"><li>• Arrange equipment to be under load at the time of the Survey. Equipment with charge and discharge modes should be surveyed during both cycles.</li></ul>
Emergency Power Panels	

## Equipment Checklist for Infrared Survey

✓	Equipment Type	Abv	Notes
	Air Circuit Breakers	ACB	
	Air Handler Units	AHU	
	Automatic Transfer Switches	ATS	
	Battery Racks	BATT	
	Bus Ducts	BUS	
	Capacitors	CAP	
	Circuit Breakers	CB	
	Control Cabinets	CC	
	Control Power Transformers	CPT	
	Current Transformers	CT	
	Disconnect Switches	DISC	
	Distribution Panels	DP	
	Elevators	ELEV	
	Emergency Distribution Panels	EDP	
	Emergency Power Panel	EPP	
	Emergency Power Transformers	EXFMR	
	Environmental Control Units	ECU	
	Fire Pump Panels	FPP	
	Generators	GEN	
	Incoming Lines	IL	
	Junction Boxes	JB	
	Lightning Arrestors	LA	
	Lighting Contacts	LC	
	Metering Cabinets	MET	
	Motors	MTR	
	Motor Control Centers	MCC	
	Motor Controllers	MC	
	Oil Circuit Breakers	OCB	
	Overhead Lines	OL	
	Peckerheads	PKHD	
	Potential Transformers	PT	
	Power Distribution Units	PDU	
	Power Panels	PP	
	Power Transformers	PT	
	Roof Top Units	RTU	
	Substations	SUB	
	Switchgear	SG	
	Transformers	XFMR	
	Uninterruptable Power Supply	UPS	
	Variable Speed Drive	VSD	
	Variable Frequency Drive	VFD	
	Voltage Regulator	VP	
	Voltage Transformers	VT	

*This Checklist is a guideline and suggestion of equipment to be included. The final decision of the list of equipment to be surveyed and the frequency is the responsibility of the your firm's personnel.*