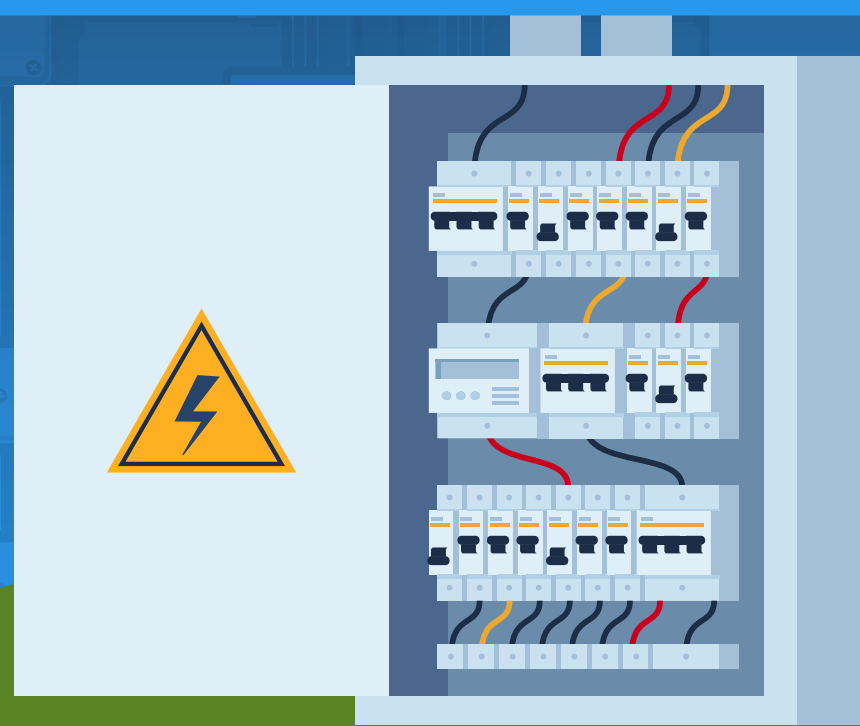


# Risky Business

What You Need To Know About...

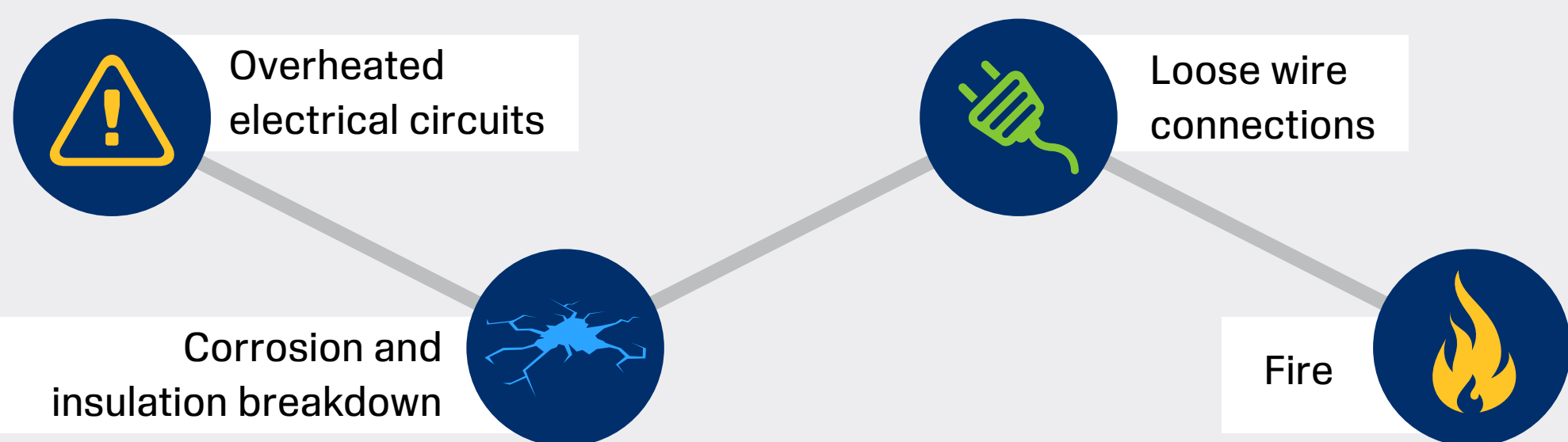


## Electrical Preventive Maintenance

Electrical preventive maintenance is a business practice critical to protecting essential equipment. Avoid unplanned interruptions to business operations by creating an action plan to proactively keep electrical equipment in good operating condition.

### Why Maintenance is a Must

Lack of electrical maintenance can lead to...



### Cause and Effect of Electrical Breakdown



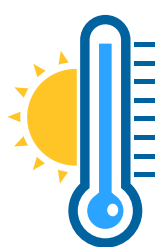
**77%** of fixed-mounted circuit breakers failed while in service due to lack of maintenance.



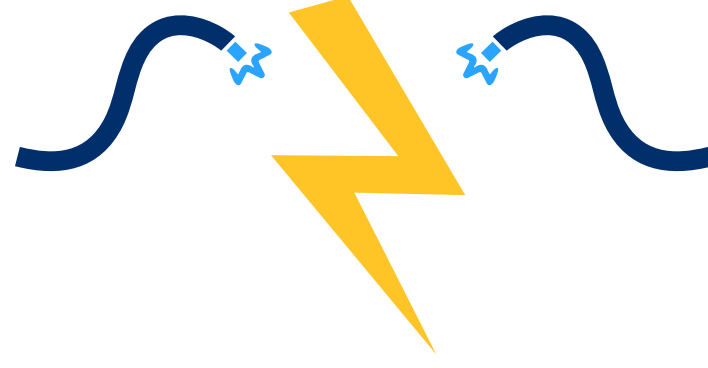
The average downtime for a typical oil-filled transformer at a commercial business is over **12 days** before it can be replaced.



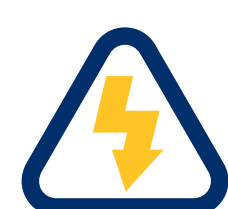
Almost **44%** of electrical equipment failures are attributed to **poor or non-existent maintenance**.



The **top three** contributing factors to electrical failure are **humidity, dust and temperature**.



**65%** of fires involving electrical failure or malfunction is from **electrical arcing**.



The types of equipment failures that resulted in more than **30%** of production losses and associated downtime involved **switchgears, cable connections, bus ducts and transformers**.

### Electrical Maintenance Tips

Remember these four preventive measures to protect your electrical components and equipment.

#### Clean



Practice good housekeeping and remove all combustibles from electrical rooms.

#### Cool



Ensure electrical components are located in a well ventilated room.

#### Dry



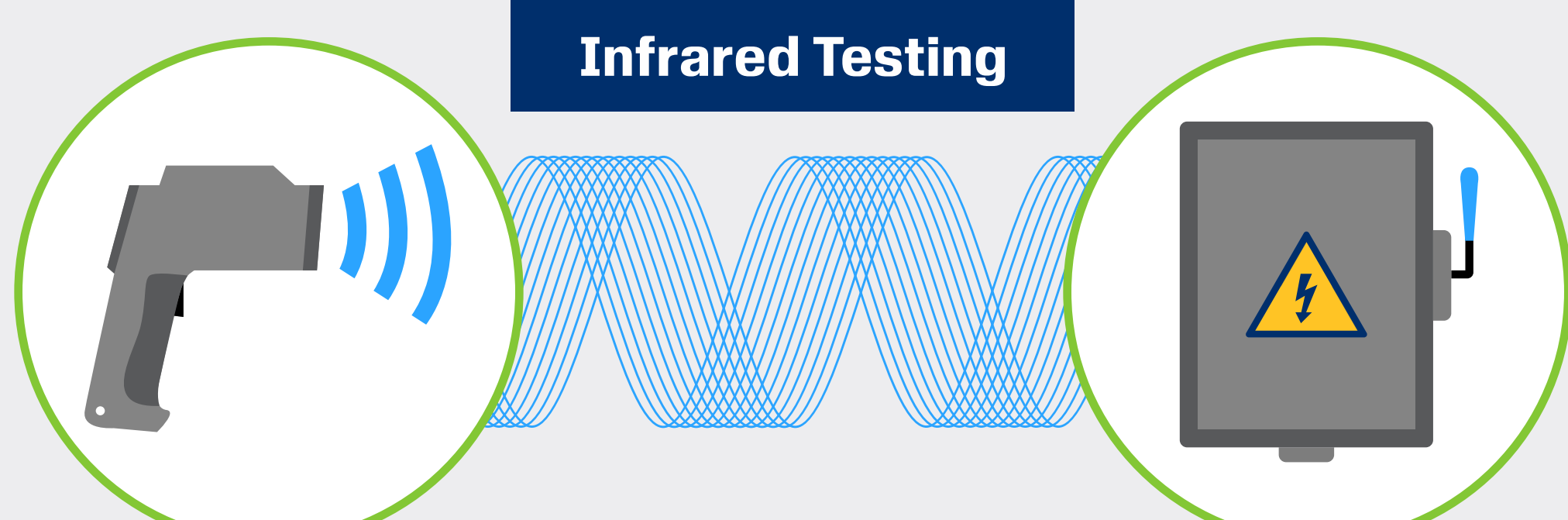
Maintain low levels of humidity and moisture with no signs of water.

#### Tight



Use sealed penetrations and tight connections.

### Infrared Testing



Infrared testing is used to identify electrical system problems by measuring the heat signature of electrical equipment while in operation. An infrared scan will detect electrical hazards, such as defective components or other serious conditions before they lead to damage or fire.

#### When to consider infrared testing:



Annually as part of an electrical preventive maintenance program



For daily verification checks of "mission critical" equipment



If your property experiences any electrical issues



Every six months for locations that have severe operating conditions



Boiler Re

#### References

<http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4264700>