ALLBRITE ELECTRIC SERVICE, INC.

4450 N.W. 126th AVE., SUITE # 101 ◆ CORAL SPRINGS, FL 33065
PHONE: (954) 583-6788 ◆ FAX: (954) 323-5513

Providing TEGG Electrical Services

Your Electrical System Specialist GUARANTEES "Failure Is Not An Option"

TEGG SERVICE

SPECIALIZING IN ELECTRICAL SYSTEM RELIABILITY

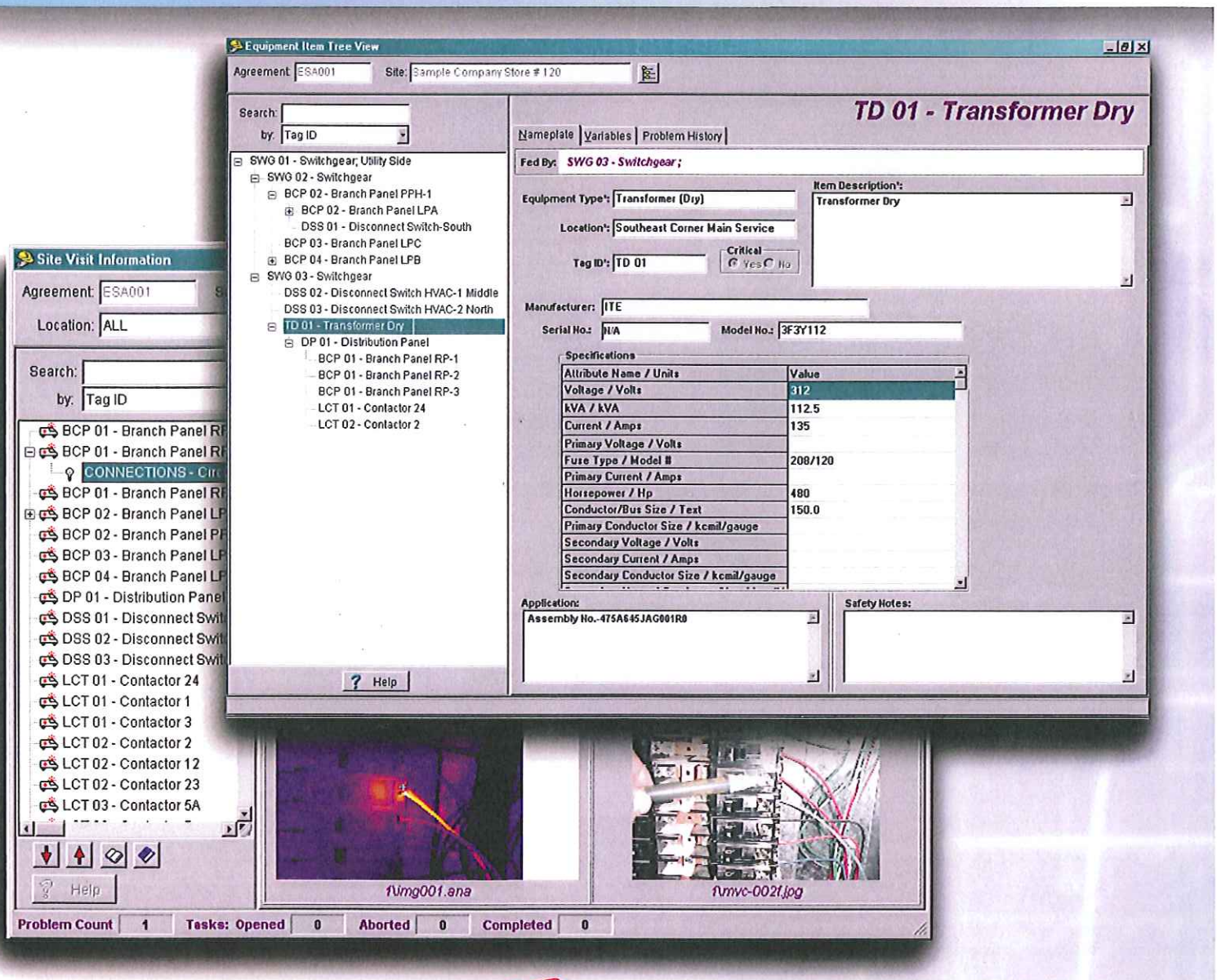
SERVICE ◆ PRODUCTS ◆ EDUCATION

TEGG® ELECTRICAL ASSET MANAGER

Comprehensive Electronic Documentation

100% Tracking, Electronic One-Line Tree View

User Friendly Customer Interface

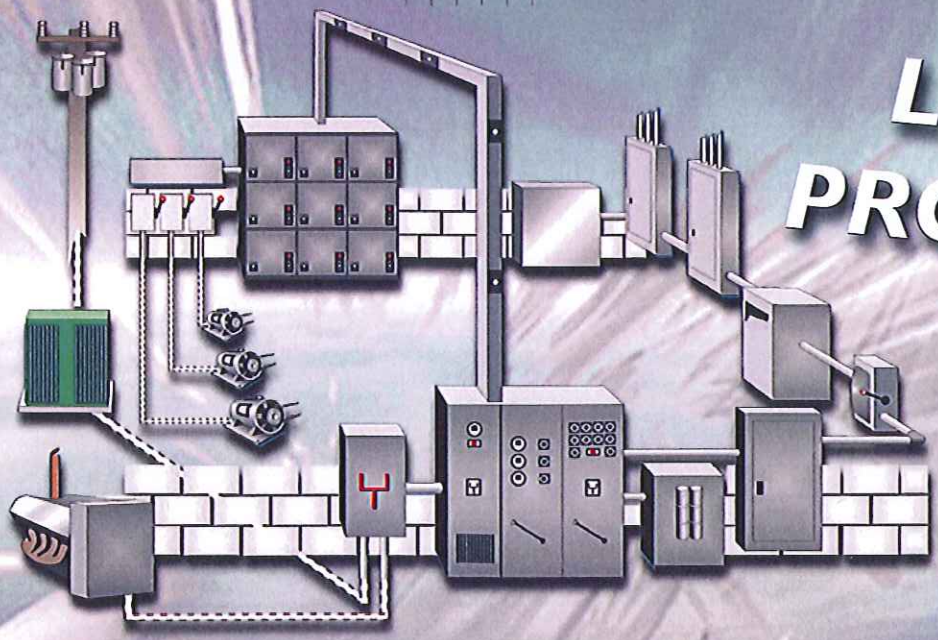


TOTAL PEACE OF MIND GUARANTEED

GUARANTEED PROGRAMS

TEGG® SERVICE

For Your
Electrical Distribution System



LIFETIME PROTECTION

TEGG PRIME

- ✓ Energized and de-energized testing
- ✓ De-energized preventive maintenance
- ✓ Guaranteed repair or replacement on components that suffer a sudden and accidental breakdown
- ✓ Provides overtime for guaranteed repairs
- ✓ Includes extra expediting service (express freight)
- ✓ Includes downstream resultant damage protection for EDS
- ✓ Includes temporary power
- ✓ Includes emergency generator if required

TEGG PREMIUM

- ✓ Provides full energized testing and analysis
- ✓ Minor services such as exterior cleaning of equipment
- ✓ Comprehensive Electrical Systems Analysis reporting
- ✓ Guaranteed repair or replacement on components that suffer a sudden and accidental breakdown
- ✓ Provides overtime for guaranteed repairs

TEGG BASIC

- ✓ Utilizes thermographic and ultrasonic technology for analysis of the electrical system
- ✓ 90-day guaranteed repair or replacement
- ✓ Guaranteed repair service during normal business hours

TEGG BUILDERS

- ✓ Begins at the end of the new construction regular warranty period
- ✓ Energized testing
- ✓ De-energized testing optional
- ✓ Guaranteed repair or replacement on components that suffer a sudden and accidental breakdown
- ✓ Provides overtime for guaranteed repairs
- ✓ Includes extra expediting service (express freight)
- ✓ Includes downstream resultant damage protection for EDS
- ✓ Includes temporary power
- ✓ Includes emergency generator if required

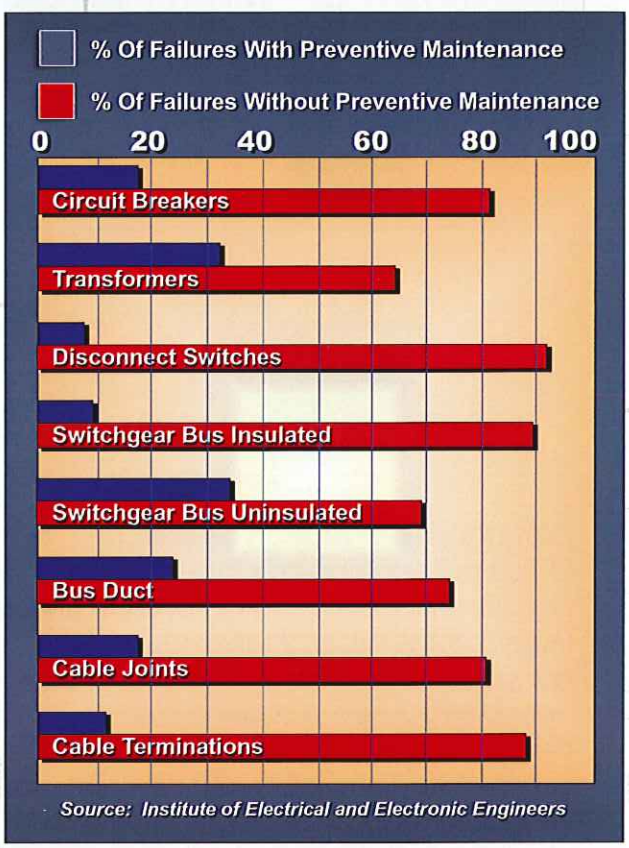
FEATURES	BASIC	PREMIUM	PRIME
Visual Inspection	Yes	Yes	Yes
Infrared Thermographic Inspection	Yes	Yes	Yes
Ultrasonic Inspection	Yes	Yes	Yes
Comprehensive IR Report	Yes	Yes	Yes
TEGGTask View	Yes	Yes	Yes
Predictive and Proactive Service	No	Yes	Yes
Electronic Equipment Inventory	No	Yes	Yes
Energized Testing and Analysis	No	Yes	Yes
De-Energized Testing & Analysis	No	Optional	Yes
De-Energized Preventive Maintenance	No	Optional	Yes
GUARANTEED SERVICE	**Yes**	**Yes**	**Yes**
Guaranteed Repair and Replacement	90 Days	Life	Life
24 X 7 Emergency Call Out	Yes	Yes	Yes
Overtime for Repairs on Guarantee	No	Yes	Yes
Downstream Resultant Damage Repairs	No	No	Yes
Express Shipments for Repairs	No	No	Yes
Temporary Power (Wiring)	No	No	Yes
Emergency Power (Generator)	No	No	Yes

How To Care For The Electrical Distribution System Within A Commercial Facility

TEGG SERVICE

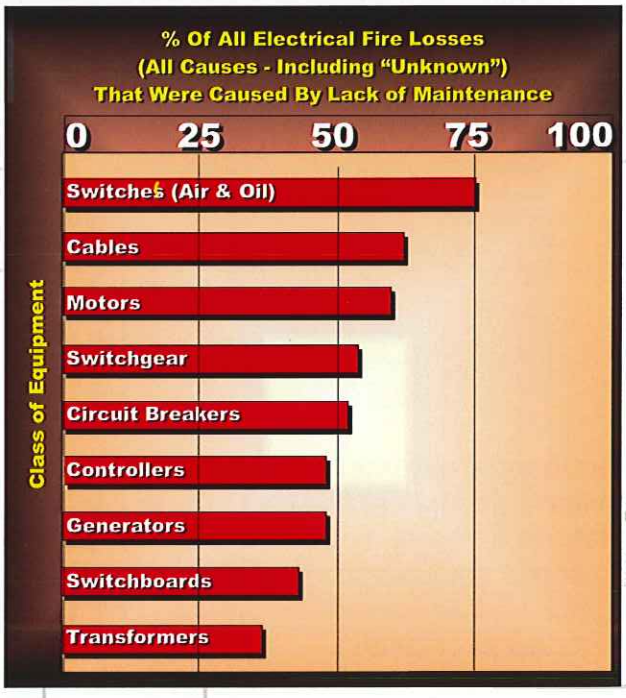
Common Problems

- Overloaded circuits.
- Code violations.
- Poor power quality.
  - Harmonics affecting critical systems caused by:
    - Computers.
    - Electronic lighting ballast.
    - Variable speed drives.
- Improper grounding due to:
  - New additions and upgrade.
  - Non adherence to the National Electric Code and/or IEEE 1159-1992 standards which are recommended practices for grounding of sensitive electronic equipment.
- Heavy energy usage:
  - This generates excessive amounts of heat that cause connections to loosen due to shrinkage and expansion. Loose connections cause arcing that generates extreme heat and high resistance, which is a major safety concern and also results in an inefficient use of power.
- Budget constraints.
- Maintenance department has many responsibilities.
- New tenants renovation affecting facility infrastructure



Critical Areas

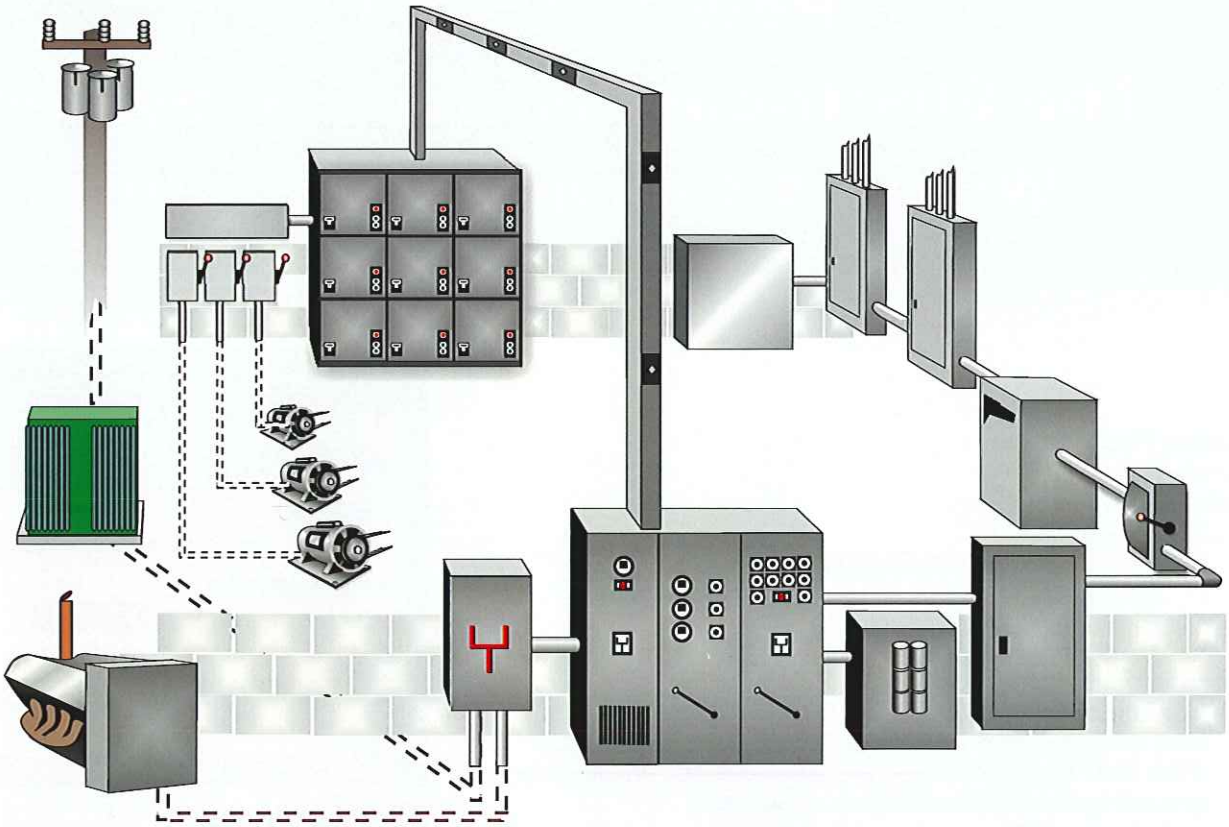
- Incoming service.
- Redundant incoming services, power supplies and back up emergency generation.
- Main transformer(s) oil & dry.
- Bus duct.
- Data collection centers.



Financial Benefits of Electrical Preventive Maintenance

- Predictive budget.
- Minimize or eliminate unexpected outages and untimely repair costs.
- Extend the EDS life/lower replacement costs.
- Lower liability risks.
- Greatly reduce electrical fires.
- Computerized documentation for your electrical distribution system.
- **Satisfied tenants - higher occupancy.**

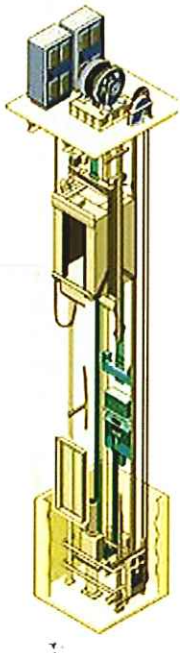
What to look for...



Electrical Distribution Systems
Office buildings usually include a large variety of electrical distribution equipment including transformers, electrical distribution panels, and bus or cable structures. Larger buildings may have large incoming transformers, and newer buildings may have sophisticated power quality control equipment. Electrical power supply equipment is most often damaged through shorting out of wiring or bus structures. A shorted electrical circuit will not only damage the electrical system, but will also cause the electrical service to be interrupted to many areas of the facility. Electrical insulation failure can lead to the shorting out of wiring, breakers and distribution panels. This can be caused by various situations ranging from abrasion, vibration, moisture contamination and lack of proper electrical maintenance. Lack of maintenance may also lead to loosening and overheating of connections. Rotating electrical equipment, such as ventilation fan motors, pump motors and elevator motors can be damaged by electrical power disturbances such as power surges.

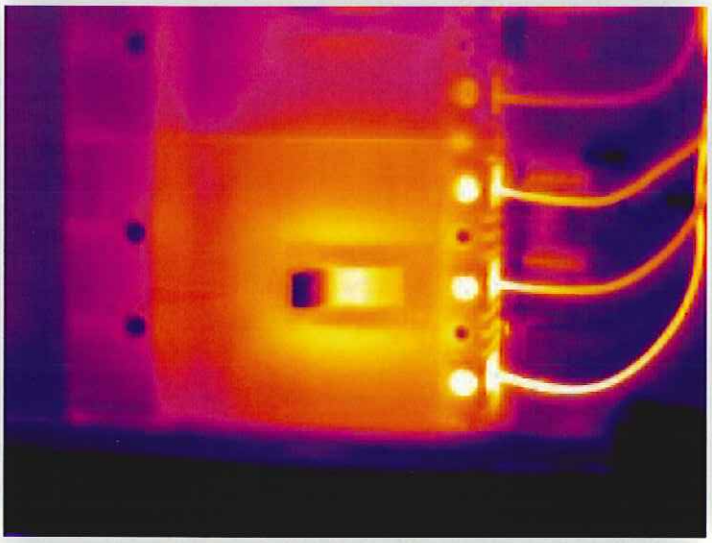
Business Equipment / Computers
Office buildings are filled with computers and data systems, printers, copy machines and fax machines. Business equipment contains fragile electronic circuitry that can be damaged by power surges and other electrical fluctuations.

Elevator Machinery
In a busy facility, elevator motors and machinery are in constant use, making them more vulnerable to mechanical breakdown. Automated elevators contain sensitive and costly electronic circuitry; a power surge could cause a complete breakdown and make complete replacement of the electronic controls necessary. Rotating electrical elevator motors can be damaged by electrical power disturbances such as surges, spikes and "brown outs."



What to look for...

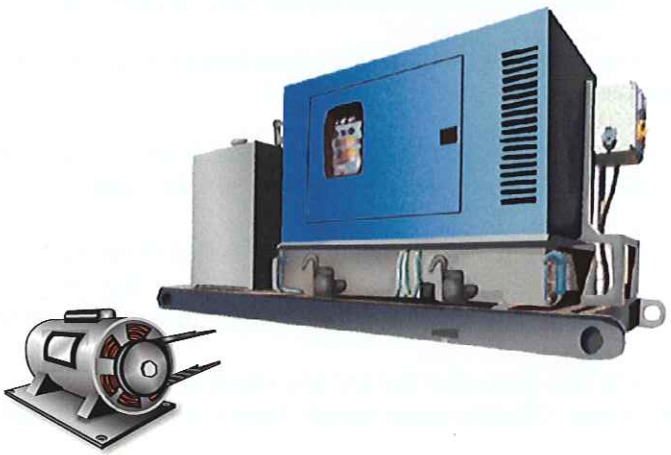
Power Transformers
Office building owners are almost always responsible for the incoming power supply and the distribution substations. Virtually every building has a transformer to step down voltage to a level that can be used within the building. They are expensive to repair or replace and are subject to breakdown due to power surges, short circuits and aging insulation.



Electrical Panels
Electrical panels are an integral element of any commercial electrical distribution system. The frequent cycling on and off of electrical loads creates heating and cooling, which can loosen connections in electrical panels and cause electrical arcing (or short circuits). Arcing can damage not just electrical equipment, but also result in surges and electrical disturbances that can damage other expensive business equipment on the premises. Because of the critical function of electrical systems in any office environment, this type of facility should have an Electrical Preventive Maintenance (EPM) program that includes regular predictive maintenance.

Emergency Generators
Emergency generators are subject to breakdown because they are infrequently serviced.

Pumps and Motors
Office buildings contain many types of mechanical equipment, ranging from simple fans and blowers, to fire suppression water pumps, to internal combustion engines used to drive emergency generators. All of this equipment requires clean and dependable power.



Renovations Can Cause Power Problems

Tenants who perform their own renovations can unknowingly affect the quality of power for the entire facility. Poor power quality causes problems. These problems affect the day-to-day business of tenants. In many cases they are hard to find without the proper equipment and expertise.

SOLUTION: Regular electrical preventive maintenance will identify and correct all existing problems. It is also highly recommended that a **Pre and Post Electrical Inspection** be completed to eliminate any problems before they happen.

BUSINESS INTERRUPTION INFORMATION

"The average hourly outage costs incurred for office buildings are $.0681/square foot."

Costs $/Hr.

Small Businesses	$1,437
Cellular Communications	$41,000
Telephone Sales	$72,000
Airlines	$90,000
Credit Card Billing	$2,580,000
Brokerage Operation	$6,480,000

Loss of Revenue $/Hr.

Industry Sector	Revenue/Hour	Rev/Empl/Hour
Energy	$2,817,846	$589
Telecommunications	$2,066,245	$187
Manufacturing	$1,610,654	$134
Financial Institutions	$1,495,134	$1,080
Information Technology	$1,344,461	$184
Insurance	$1,212,444	$371
Retail	$1,107,274	$244
Pharmaceuticals	$1,082,252	$168
Banking	$996,802	$131
Food/Beverage Processing	$804,192	$153
Consumer Products	$785,719	$128
Chemicals	$704,101	$195
Transportation	$668,586	$108
Utilities	$643,250	$381
Health Care	$636,030	$143
Metals/Natural Resources	$580,588	$153
Professional Services	$532,510	$100
Electronics	$477,366	$74
Construction & Engineering	$389,601	$216
Media	$340,432	$120
Hospitality & Travel	$330,654	$39
Average	**$982,197**	**$232**

Equipment Loss Examples: Commercial Facilities

Voltage fluctuation caused two terminal boards in an office building phone system to short out.
Total Loss: $52,500

Electrical arcing destroyed three main electrical panels and left an office building without power. Temporary measures are taken to restore power to tenants.
Total Loss: $1,597,389

Computers were damaged by a power surge that came through data network lines. Surge suppressers were on electrical and communication lines, but not on the data network line.
Total Paid Loss: $30,800

Damage occurred to electrical circuit breakers, store HVAC system and computers when rain leaked through the roof onto equipment.
Total Loss: $201,547

A toilet overflowed above a main electrical distribution panel. Water seeped into the panel and short-circuited the system, causing extensive equipment damage.
Total Loss: $16,500

There were power surges in the area when guests began complaining of a loss of electricity and heat in their rooms. Repair crews found extensive damage to the main electrical switchgear and the heat pumps for 40 of 138 rooms. Owners were anxious that repairs be completed before the busy Thanksgiving Holiday.
Total Loss: $108,602

Loose bus bars shorted out the electrical panel that supplied the HVAC system, setting off sprinklers and cutting off all power. Guests were rented rooms at another hotel before temporary equipment and generators were installed.
Total Loss: $146,172

- Hartford Steam Boiler