

Quality Power is it Fact or Myth?

Power Quality Products Are they Options or Necessities?

"Urban Myths", you know the ones about Craig Shergold, Beanie Babies, The Blue Lake, Clean Electrical Power... and innumerable more. Some of these originate as innocent hype, others are born out of pure maliciousness. Once thoroughly investigated, each of the above can be put to rest in the Urban Myth graveyard.

The "Clean Electrical Power" myth is one that has been circulating quite dramatically for a number of years now and is becoming increasingly dangerous in this post modern world of microprocessor controlled "everything". Not to belabor the issue but from the Microwave Oven to the Microwave Tower and the VFD to the PLC; virtually everything is using microchip based technology.

This "Count Dracula - like " Urban Myth needs a stake in the heart to finally put it to rest in the Urban Myth Graveyard. There are a multitude of independent studies, research reports and business publication reports to finally kill off this myth and awaken the public to the true need for Power Quality Products!

In no particular order we submit the following factual information, designed to once and for all lay to the rest the Urban Myth of "Clean Electrical Power".

Computer Technology Review stated that 80% of computer related problems were power related and could be eliminated with the proper application of power quality equipment.

Plant Services Magazine reported that 35% of lost production hours could be attributed to transient voltage problems.

TRW computer services firm - discovered that greater than 40% of their service calls were NTF, power related problems.

Business Week magazine call power related problems a \$26 Billion Dollar a year problem.

Mid America Banner reports a study in which 29% of Copier service calls could be and were eliminated with the application of quality surge suppression devices.

National Power Laboratory reports that the average computer site in the US will be faced with 38 power interruptions per year.

Electrical Contractor magazine notes that greater than 70% of time dirty-power problems can be related to wiring, grounding and equipment in nearby panels, locations or buildings.

Computerworld Mag. - put a price tag of \$78,191 per hour on computer downtime for the average company.

Contingency Planning Research Inc. contends - power problems are at the root of nearly 50% of data loss at computer installations in the US. And at a cost of damaged equipment exceeding \$318 Million according to reported insurance losses.

Tripp Lite of Chicago reports that 75% of all Computer problems are caused by AC power fluctuations.

Wiremold Inc. of CT also confirms that 60% of more of power problems are caused by sources within the work place.

The Electric Utility industry sustains over \$1 billion a year in costs for damaged equipment and lost revenue from lightning incidents.

Lightning-induced outages cost the telecommunications industry \$100 million per year.

A study composed recently by Interpose Inc. and Microsoft analyzes the Total Cost of Operation for Windows based systems. They have dissected the cost of operations into Hardware and Software, Management, Support, Downtime and several other items. Their research indicates the TCO for the desktop PC runs in the neighborhood of \$7250 per year! An incredible number! The figure we are most concerned with is the 20% allocation of the TCO to downtime! If we extrapolate 50% of that cost as being power related then approximately \$725 of the annual cost of operation on a networked PC can be attributed to poor power!!!

A recent IBM study showed that the typical computer is subject to more than 120 power problems per month.

Is it any wonder that the power quality products industry is growing at a rate of close to 20% annually. The need has never been greater, the awareness is continually growing and yet there are still small pockets of individuals who live under the misguided assumption that the electricity in their office, plant, lab or hospital is as clean as the driven snow.

In order to increase productivity and competitiveness in the global economy companies have and continue to invest in computers, automated manufacturing systems, digital telecommunications networks, LANs and WAN's. Companies depend upon reliable performance and longevity of these investments. Yet, how often is this equipment connected directly to "street" power with no thought as to what goes on behind the outlet.

The utility companies are being pressured to supply cleaner and cleaner power, when in reality 60-80% of all power disturbance events are created internal to the facility. It is not that the utilities are sending out dirtier power, its that the equipment within the facility has become enormously sensitive and subject to even the slightest of power fluctuations. Many times only causing data upset, over the long term cumulative damage and equipment failure.

Computer Power Inc. research reports that according to power studies throughout Canada, Mexico and the U.S. that the most frequent electronic equipment malfunctions are due to power line spikes and transients.