



ELECTRICAL FIRE & SAFETY POWER QUALITY AUDIT

ENERGY IS LIFE



AN ESCO COMPANY EMPANELED WITH BUREAU OF ENERGY EFFICIENCY, GOVT. OF INDIA, MINISTRY OF POWER



OUR PROFILE

MARSZ association with BNN POWER is a reputed developer, manufacturer and service provider.

All our Technical products are the best in performance, and provide complete reliability to the users. Under the visionary leadership of our mentors, we are well-known brand of Industrial and commercial sectors in the national market. Bureau of Energy Efficiency, Govt. of India, Ministry of power empanelment as an Energy Service Company is our credential.

THE OBJECTIVE

MARSZ association with BNN POWER a Mumbai, based ESCO (Energy Service Company) empaneled with Bureau of Energy Efficiency, Govt. of India, Ministry of Power.

Engaged in developing an extensive range of innovative **PRODUCTS** to the customers of Various types of Industrial, Textile, Medical & Commercial sectors.

Acknowledged for reliability, innovative idea and availability with lower price. Our range of PRODUCTS is widely used in Saving Energy for LED Lights & Motor / Mixed Load, Harmonics Control, Solar Street Light, Power Factor control with or without capacitors and many other purposes.



Importance of Electrical Fire & Safety

Electrical fire safety Audit is important because more than 40% fire incidences takes place due to faults in Electrical circuit/connections, rise in Temperature, Harmonics heat etc. Power Quality determines the fitness of Electrical power to consumer devices. It also refers to the relative frequency and severity of deviations in the incoming power supplied to electrical equipment's from steady or fundamental 50 Hz, sinusoidal waveform of voltage and current. These deviations may affect the safe or reliable operation of electrical equipment's such as circuit breakers, Motors, Fans, variable frequency Drives, CNC machines, Lifts, Cranes, Air conditioners, LED lamps, UPS, Computers, Printers, Servers, Laboratory equipment's etc.

Importance of Power Quality

Electrical power is expected to deliver undistorted sinusoidal rated voltage and current continuously at rated frequency to the consumers. Power quality can be defined as any problem manifested in voltage, current, or frequency deviation that results in failure or malfunction of electric equipment. Power quality is predominantly a customer issue. When quality of the power supplied is deficient, it results in performance degradation and reduced life expectancy of equipment. Characteristics that affects power quality and voltage fluctuation, harmonic distortion, unbalance V & A, flicker, supply interruptions, voltage sags, voltage swells and transients etc. Complete world is increasingly run by motors but backed /controlled by electronics cum micro-controllers that are even sensitive to small electrical fluctuations, illustrates power quality disturbances. To prevent them intensive care is required to be taken on different ground.

Importance of Thermography

Electricity at Work Regulations Act 1989, Health & Safety at Work Act 1974 and BS 7671 (IEE Wiring Regulations 17th Edition as amended) suggest that electrical infrastructure be regularly maintained and tested to ensure compliance with safety guidelines. By rendering infrared radiation surface accurate temperature can be captured & displayed. Using Thermography imaging camera and detecting connections and repairing them, the likelihood of a breakdown of the electrical wires and related components will be reduced.



ADVANTAGES

- Assist in preventative and predictive maintenance
- Reduced Efficiencies
- Insulation Damage
- Pulsating torque's in rotating Machinery
- Interference with communication, Control and Signal circuits
- Malfunction of Equipment.
- Increased Operating Temperature on Equipment, Cables, Switchgears, Motors & Transformers,
- Blown fuses & tripping of switch gears.
- Max. Demand Control
- Electricity bill control
- Power Factor Improvement
- Reactive Power management

WHY POWER QUALITY ANALYSIS?

- To Improve Power Factor & system efficiency.
- To Avoid Break-down time & production Interruptions
- To Avoid excess Energy consumption.
- To remove Harmonics, Surges & Transients from electrical Network.
- To Avoid Voltage/frequency fluctuations & device Hang-up.
- To Avoid Transformer overheat, Capacitor burst, Trip Etc.
- Saving in Energy Bills due to reduced Losses & KVA demands.
- Accurate Measurements by Installed Meter.
- To avoid Earth Leakage current
- Enhanced Life cycle of Electrical network & component.
- Maximize Plant distribution Capacity.
- To maintain KWH=KVAH
- To reduce Harmonics distortion
- To reduce Neutral current
- To avoid current unbalance







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