

Power Factor Maintenance.

Maintaining and monitoring power factor correction equipment to reduce network charges.

Power factor is a measure of how efficiently electrical current is being converted into useful energy. Poor power factor is usually below 0.95 – and means you're paying extra costs, the 0.95 is not a % it's a ratio.

Poor power factor can also cause:

- Low voltages which can affect equipment performance.
- Reduced capacity in your electrical system.

Reduced capacity in your electrical system forces you to:

- Switch off equipment at peak demand times.
- Invest in switchboard upgrade to install new equipment on site or reduce outage risks.

Maintaining good power factor.

At Smart Power we are experienced in improving power factor to reduce network charges and the risk of premature and unforeseen equipment failure. While many sites have capacitive power factor correction installed, usually in the form of automatic power factor correction equipment, this is not 'set and forget'.

Immediately following the installation of power factor correction equipment, it is very common for a site's power factor to degrade over time, this can be caused by a number of factors such as load changes, capacitor degradation (a naturally occurring eventuality) or other equipment failure. As a site's power factor deteriorates, this often leads to direct penalties and/or the steady rise in network charges. A preventive maintenance programme conducted by Smart Power can help avoid any penalties and/or the slow but steady rise in network charges brought about by poor power factor.

The process involves:

1. Analysing metering data to assess site power factor and reactive energy demands.
2. A site visit to test the operation of all power factor correction (PFC) units.
3. Testing harmonic voltages on site.
4. Maintaining a conditional record of all PFC units tested.
5. Establishing a capacitor degradation history for predictive maintenance.
6. Preparing a site report detailing all PFC units tested, their design capacity, operating capacity, predicted life expectancy, site voltage harmonic levels and any variances from the previously reported inspections.
7. Providing a recommendation for any further action which may be required.



Benefits:

- Avoid network penalties.
- Improved equipment performance through higher voltages.
- Improved electrical system capacity.
- Experienced in managing whole site performance.
- Independent advice.
- Ongoing monitoring services.

What our clients say.

"They saved us time as they managed the process, reduced network penalty costs, and fixing the power factor improved the reliability of the electrical system in our building."

*"Provides sound advice.
Good technical expertise."*



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