

ENERGY SAVINGS

using Power Factor Correction

Could five minutes save you thousands?

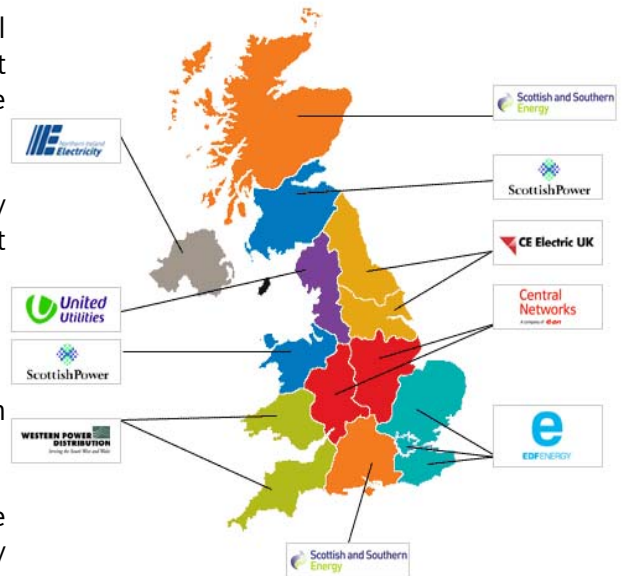
Our experts at Power Quality Management can assess the potential for savings based on the details in one monthly bill. The time it takes to fax or email a copy of your latest bill could be the difference between reducing your bill by 11% or not.

Once we have identified a potential for savings, a power quality expert will visit your site free of charge to quantify the equipment required and give a cost benefit analysis.

Are you being charged now?

With increasing power charges, energy saving has become an essential part of many companies' cost evaluation.

Since electricity privatisation was fully completed in 2001 the application of additional costs for poor power factor has slowly been removed.



Distributor	Charge?
	Never charge
	Don't charge – will from April 2006
	Charge in two bands to 0.95
	Rarely charge
	Don't charge
	Charge up to 0.9 p.f.
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In 2004, Ofgem advised Electricity Suppliers that they were removing the cap on revenue made directly from charging for Reactive Power. This has led to a number of Electricity Suppliers to re-introduce charges.

These charges amount to thousands of pounds on UK electricity bills for those consumers with a poor power factor. The table shows areas of the country where charges are applied.

Is your investment paying off?

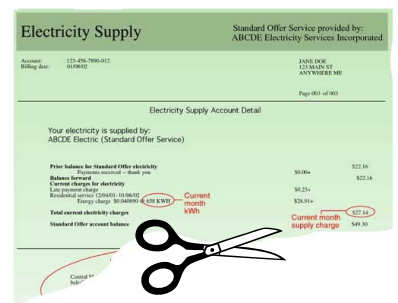
Many sites already have existing power factor correction equipment. However, without regular maintenance, the usual savings can be lost.

Identifying increased charges when Power Factor Correction equipment malfunctions is difficult. These power factor or reactive power penalties are displayed as a "Reactive Power charge", "Kvar charge", "Use of System Charge" or "Availability Charge".

Our site visit will identify any existing equipment, assess its operation and propose optimum solutions for maximizing energy savings.



* Information from www.ofgem.org.uk



Why the need for reactive power?

In order to run electric machines, such as motors and transformers, two types of power are required: - active power, measured in kilowatt hours (kWhr) which is turned into mechanical power and heat losses (this is what makes motors turn), and reactive power, measured in kilovar hours, which magnetizes the circuits.

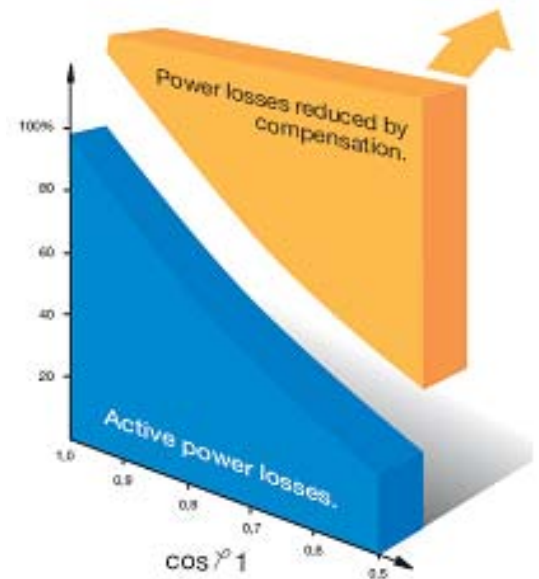
The reactive power required by a motor and an electrical installation may either be supplied by the electricity supplier or by capacitors fitted on site (PFC equipment) - the latter cuts your energy bills, the former does not.



The PQM Difference

Involved in electrical engineering since 1976, there are not many technical problems that we haven't seen. Our broad experience includes work in energy measurement, product design, installation and maintenance. This gives us a strong appreciation of our customers' needs and expectations, and also the means to meet their requirements.

In recent years we have focussed on identifying, quantifying and correcting 'power quality' and 'power factor' problems; having successfully assessed and applied solutions to over 550 installations - both at Low and Medium Voltage.



Savings

Savings can be gained threefold:

Consume Less Power

Power Factor correction equipment reduces kVA, and as such reduces Amps. This reduction in Power gives further resource for expansion, or spare system capacity.

Reduced System Charges

Tariff savings are often possible depending on the Electricity Supply Company, and tariff selected. The penalties and method of charging varies:

- KVA demand charge (Maximum Demand)
- Availability charge

Extended Life of Connected Equipment

In reducing the load current, Power Factor Correction equipment decreases heat losses and therefore extends equipment life.

Free Consultation Service

Our specialist engineers are available to discuss your requirements and advise on a strategy for increasing efficiency and minimizing electricity costs, with no obligation.

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