

## Sub-Metering Supplies

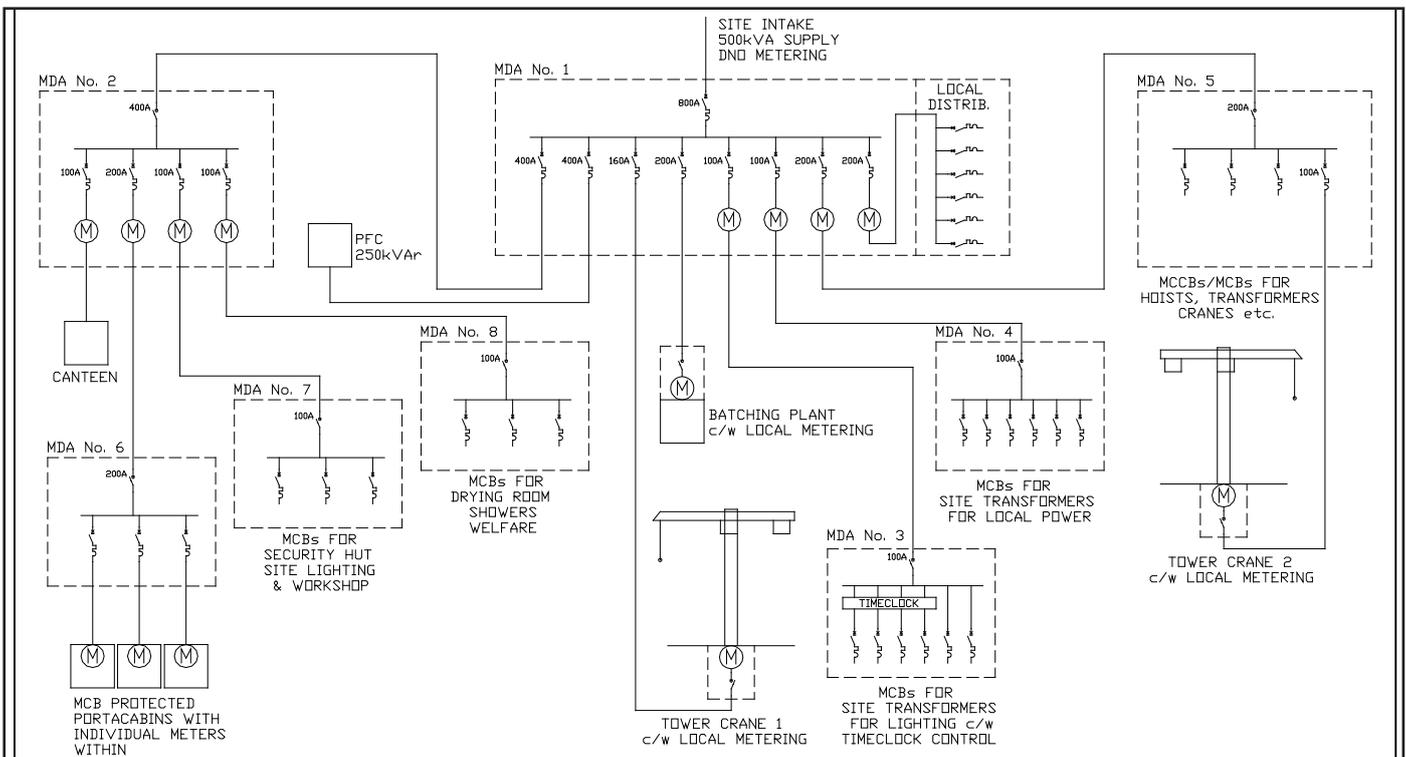
In order to manage consumption effectively it is necessary to know where power is being used. The simplest way to do this is to measure consumption at a local level. This philosophy is a main tenet of Part L of the Building Regulations, where the recommended approach is the widespread deployment of sub-metering, targeted at individual, significant loads as low as 10kW. The nature of Temporary Installations means that such a detailed approach is not practical. However, the incorporation of kWhr meters on circuits rated at 100A and above greatly increases the ability of site management to identify areas of waste and therefore to reduce consumption and emissions. We can incorporate energy meters on the outgoing feeders of high current MDAs, the incomers of lower current MDAs or individual isolators supplying large items of plant such as cranes. Critical data on consumption and maximum demand can be acquired and, therefore, managed. Meters can also be MID approved and used for billing purposes.



Mains Distribution Assembly, 3200A with individually metered 800A outgoing feeders

### Typical Site layout

The layout shows the deployment of meters on outgoing feeders, crane isolators and accommodation units. Metering could be deployed at a more detailed level of consumption. However, it is unlikely that the benefit of acquiring data on the consumption of each site transformer or hoist would be worth the investment. Also shown are other GreenPower products such as Power Factor Correction and Time Clock Controlled site lighting transformers.



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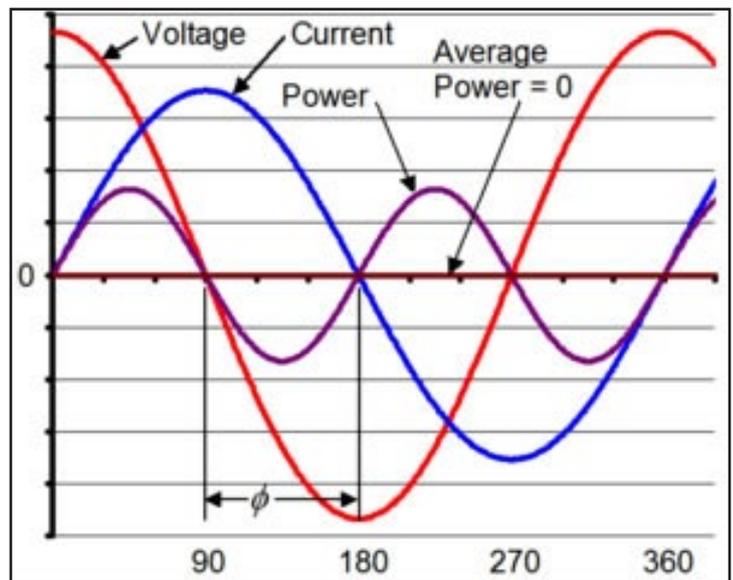
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# Data Logging and Analysis

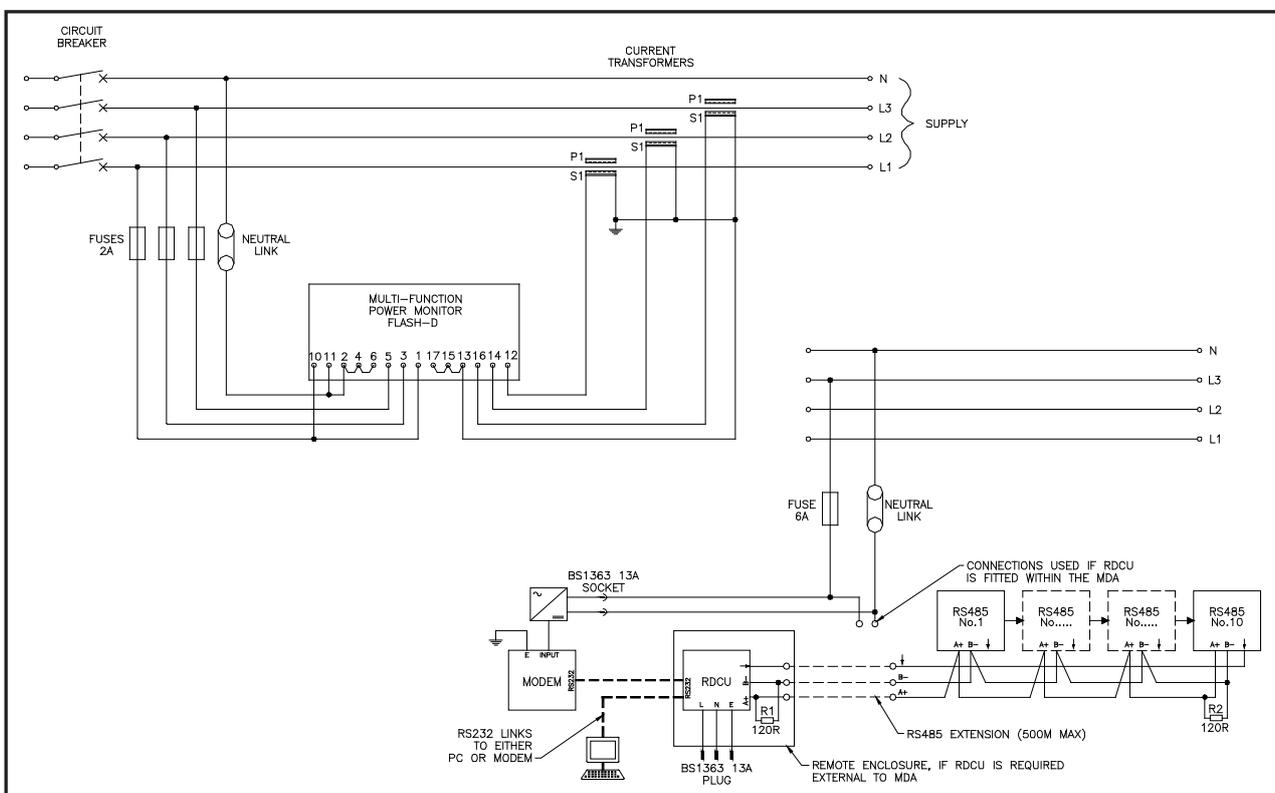
## Power Consumption and Quality Survey

When very detailed information is required on power consumption or power quality, we can arrange for a power survey to be carried out. Surveys can last for whatever period of time is required, whether it is a day or a week or a month, and they can provide precise data on a wide range of topics such as the overall power consumed by the site, when it was consumed, maximum demand and when it occurred, power factor (the overall average and from time to time), harmonic distortion detection, etc.

A detailed analysis of the Data and Power Management recommendations are provided as part of the survey package. Costs depend on the complexity and duration of the survey.



## Incorporation of data logging equipment into high current MDAs



On large projects where there is a requirement to acquire detailed consumption data for the duration of a contract, each feeder of an MDA can incorporate a Multi-function Power Meter with an RS485 link to an integral Remote Data Collection Unit (RDCU). The RDCU can be linked to a modem or PC, allowing power consumption to be monitored in real time or recorded for future analysis.

## Portable Data Loggers

For load currents of up to 600A we can supply low cost, easy to use current loggers, which can record basic current consumption data for a period of up to 3 months. Simply clamp the meter around a mains cable, select the logging frequency (from every second to every 30 minutes) and leave it for a day, a week or a month. The data can be downloaded to a PC or laptop for analysis.

