

MID Guide

for colocation providers

Energy meters and billing of energy usage

Through our work at Powerapp I frequently talk with numerous colocation providers around Europe. We chat about issues facing the industry such as how to automate the billing of colocation customers' electricity usage and avoid revenue leaks.

When a colocation provider bills its customers for electricity usage, they must comply with legal metrology legislation, and that legislation's requirements for electricity meters. The European Union has defined the essential requirements for 10 different measuring instrument types, including active electrical energy meters, in the Measuring Instrument Directive (MID).

As I talk with the colocation providers it becomes clear that knowledge about the MID directive varies from company to company. Some colocation providers are already implementing MID certified meters, while others may have heard about MID but are in doubt about what is expected from them in order to comply with the directive.

The MID directive: what is it, and when?

The purpose of the directive is to harmonise measuring instrument legislation across borders and eliminate technical trade barriers. From October 2016 any new energy meter installed for customer billing must be MID certified.

MID is a European standard (well almost)

While the directive is meant to be a European standard, each member country can decide if they want to do a full implementation or partial, with adjustments. The WELMEC site gives a good overview of each member state's MID implementation status. As a rule of thumb, if you are billing someone for their electricity usage then you must use MID meters or national approved energy meters.

MID meters in a data centre environment

Most MID meters are designed to be mounted on DIN rails and will therefore fit into PDU's, RPP's and tap-off boxes, which means they can be used for measuring at room, cage and rack level.

Questions from colocation providers, with country-specific answers

The way the MID directive is implemented in each member country varies, as there is room for some local adjustments. We took the most common questions we have been asked and put them to the regulating authority that will oversee MID implementation for that country. These countries are the United Kingdom, France, The Netherlands, and Germany.

MID FAQ - United Kingdom



Questions answered by: Regulatory Delivery

About: Regulatory Delivery, part of the Department for Business, Innovation and Skills, has statutory responsibility for the metrological performance of electricity meters under Schedule 7 of the Electricity Act, 1989.

Regulatory Delivery is only responsible for metering regulations in Great Britain (GB); Northern Ireland has its own regulations. The questions below are therefore answered for Great Britain.

Powerapp comment regarding the MID and Brexit: the directive will be enforced until article 50 is triggered and a new regulation is defined. After article 50 is triggered, legal metrology will continue to be regulated and require approved energy meters, just as it was prior to MID. To protect the ability to export electricity meters, we believe the UK will continue to enforce the MID in the future, just like other non-EU countries have done.

Q: Do colocation providers have to use MID certified energy meters when billing customers for their electricity usage?

A: Schedule 7 of the Electricity Act requires any customer being billed for a quantity of electricity supplied to be billed through a meter of an approved pattern or construction and installed in an approved manner. Until the 30th October 2006, all meters were approved under GB national legislation. Since this date meters can also be approved under the MID. From 30 October 2016, all new meters placed on the market must be MID approved. However nationally approved meters can continue in use, and can continue to be repaired or refurbished, for as long as they conform to the legal requirements.

Q: Are 'Billing grade' or 'ANSI' approved meters approved for the billing of electricity?

A: No, all meters must be approved either under GB national legislation, or under the MID.

Q: Are there any special requirements when billing colocation customers with a power usage in the range of 0-99kW and +100kW?

A: There is no minimum requirement for billing. However in Great Britain the MID only applies to electricity meters where the maximum quantity supplied does not exceed 100 kilowatts per hour. Meters used for supplies greater than this will continue to be approved under GB national legislation.

Q: Is a periodical verification required once the MID meter is installed?

A: MID meters have no defined in-service life or verification period. However there is a requirement in the Electricity Act for meters to be kept in proper order for correctly registering the quantity of electricity supplied and the performance of MID meters is monitored through a process of in-service testing.

Q: We just charge a flat rate per contracted Amp or kW and not per kWh, must we use MID?

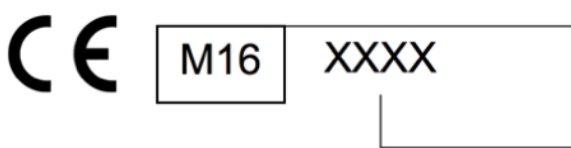
A: If a customer is being billed for the quantity of electricity supplied, they must be billed through an approved electricity meter.

Q: Is there a fine for non-compliance with the MID legislation?

A: Where a customer is being charged for a quantity of electricity supplied, it is an offence under the Electricity Act to supply the electricity through a meter that is not of an approved pattern or construction, or is not installed in an approved manner.

Q: How can one tell if the meter is MID certified?

A: MID meters are required to carry the CE and metrology “M” markings as shown below:



CE and “M” mark followed by last two digits of the year in which the CE marking was affixed (i.e. 16 = 2016)

XXXX denotes the number of the notified body that is involved in the production control phase.