

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 - GERMANY



Questions answered by: PTB

About PTB: Whether we put fuel in our cars, the sat-navigation keeps us on track or our blood sample is tested in the laboratory – metrology permeates our everyday life. The approx. 1900 staff members of PTB work at the world class level to make measurements increasingly more precise and reliable and to support the German economy through its research and development.

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

A: Yes, the Measures and Verification Act (MessEG) 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 of October 2006, all meters were approved under German national legislation. Since this date meters have also been approved under the MID. From the 30th of October 2016, all new meters placed on the market must be approved under the MID. However nationally approved meters can continue in use, and 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 German 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: No, MID approved meters must be used when billing any amount of active electrical energy.

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

A: Electrical meters must be verified every 8 years.

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

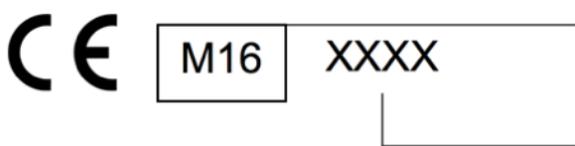
A: If a customer is being billed for the quantity of electricity supplied, they must be billed through an approved electricity meter.

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 Measures and Verification 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.