

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 - France



Questions answered by: Bureau de la Métrologie

About: The Bureau de la Métrologie (BM) within the Directorate General of Enterprises (DGE) is part of the Ministry in charge of industry. The BM defines the general rules of legal metrology, prepares regulations, surveys designated and notified bodies, coordinates metrological controls, market surveillance, and the work done by the DIRECCTE, and participates in European or international meetings.

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

A: Yes, any customer being billed for any quantity of electricity supplied must be billed through an approved meter. Electricity meters in residential, commercial and light industrial must be MID certified.

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

A: No, all meters must be approved either under French 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 the MID is only applicable to electricity meters used in residential, commercial and light industrial. For heavy industrial, electricity meters should be certified according to "Arrêté du 1er août 2013 relatif aux compteurs d'énergie électrique active" and their accuracy equivalent to class 0.2S defined in standards EN 62052-11:2003 & EN 62053-22:2003. The limit between light and heavy industry is not clearly defined in the regulation.

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

A: Electricity meters should be verified every 10 years. It could be a unit verification or statistical method of sampling with conditions: electrical energy meters should be divided into homogeneous lots with similar metrological characteristics by the company taking responsibility for the group of instruments in service within a defined area. The lots should be validated by French authorities. The minimal sample and the acceptance criteria are defined in arrêté du 1er août 2013.

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

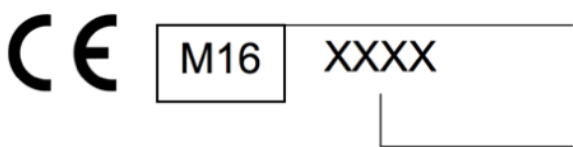
A: If a customer is being billed for the quantity of electricity supplied, they must be billed through an approved electricity meter.

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

A: Yes, a company that uses a non-compliant measuring instrument for the billing of electricity can be fined.

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.