



why do i need metering?

As the cost of energy continues to increase and with the growing awareness for energy efficiency, the need for capturing, analysing, reporting and billing consumption data is now essential and often a legal requirement for most organisations.

Historically, most data has been supplied by Utility companies from Ofgem approved metering. However today there are a large number of smart sub metering devices on the market that allow organisations to use aM&T to independently monitor consumption, not only at the Utility Billing stage but right down to an individual level

Ofgem Meters or MID Approved Meters?

OfGEM approved meters which were the only available legal billing meters until 2006 and may still be sold until 2016 (and used thereafter), this is an extended grace period that has been allowed by the European Union for manufacturers to process the new MID certification on older meter models.

Ofgem no longer tests or approve meters due to the introduction of the MID directive which allows manufacturers to comply using an approved European testing body, Such as Kema, NMI etc.

Implications of installing a non-MID meter?

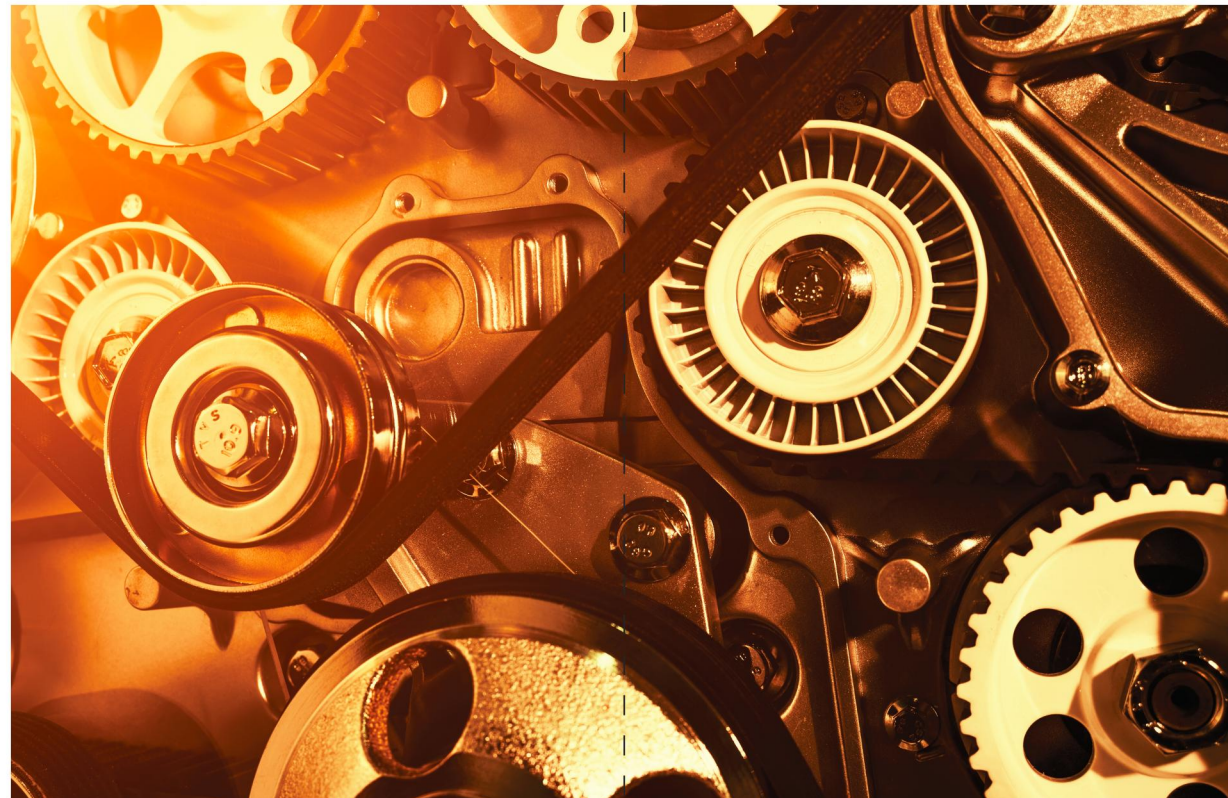
From October 2006 new meters used for connections are required to comply with the Measurement Instrument Directive (MID) regulations. This European directive harmonizes national legislation concerning instruments for legal measurement (e.g. electricity, water and gas meters, petrol- pumps, taximeters). Installing a Non-compliant MID meter would effectively render any reading data invalid for fiscal purposes. This could lead to settlement issues.

What Certification should I ask for? - two Parts!

Part 1 - Annex B states the meters accuracy requirements (the Certification).

Part 2 - Annex D or F specify how the meter has been tested (the Verification).

Manufacturers should be able to provide this data for each meter.



EQ Meters. A step toward environmental improvement and fair cost allocation.

Can you afford not to have MID verified in your electricity meter?



Improving energy efficiency starts with monitoring. Find out where energy is being wasted and keep track of users' individual energy patterns. With EQ meters you can gain control and allocate costs fairly to tenants or any type of energy users. Act responsibly and install an EQ meter today! Products on www.abb.com/lowvoltage

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How can we **reduce the energy consumption** of our **buildings**?



How is **ABB** helping to **save energy** in our **homes**?



Simple, scalable solutions ensure **efficient energy consumption**

up to **30%** energy savings*
*According to EN 15232:2007 (E)

- Sub-metering solutions monitor energy use to identify and prevent wastage
- Select lower power consumption and high performance meter to save the earth



Did you know that there are three kinds of energy?

Active - In the majority of the countries around the world the customer is only charged for the use of active energy, which is the energy that our loads use to operate. It is the most common form of energy that is measured for villas and apartments.

Reactive - For industry, it is also common practice to measure the reactive electrical energy. Often there is a limit on how much reactive power on industry can consume. If this limit is exceeded the customer will be penalized.

Apparent - Apparent energy is not usually considered except in some countries, e.g. South Africa, and is a kind of summation of active and reactive energy.

Choose the **right Electricity Meter**

Getting to term with MID

Measuring Instruments Directive (MID) was introduced by the European Commission in 2004 to promote free trade and access of measuring instruments and provide common rules for their use in Europe. MID is to respond to reasons of public interest, safety and order, protection of the environment and consumer (fairness of cost distribution). MID is fully into force on October 30th 2006 in Europe and UK for billing application. It covers kWh Energy Meter, Water Meter, Gas meter, taxi meters, weighing and dimensional instruments, etc.

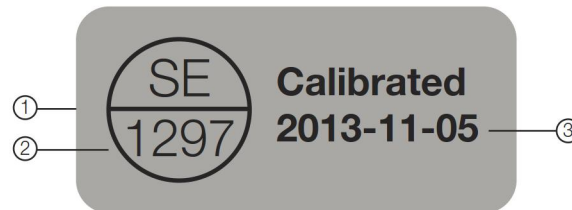
Type approved and verified meter

Almost all kWh energy meter available in the market is type approved meter. Type approved meter only carry out one time type testing on the products, no further third party verification of performance on the final production.

A verified kWh energy meter is similar to the type approved meter with every individual meter undergo verification process by a third party accredited notified body to confirm the meter performance and accuracy that are within the tolerable limit. Every meter carries a traceable serial number.

MID verified kWh energy Meter is similar to the power and utility meters. The readily available of MID verified kWh meter provide the alternative to meet the craving of power and utility meter in sub-metering applications with better functionalities, operational and installation cost.

To **measure** is to **know**



1. Declaration of MID verified conformity label
2. Notified body
3. Date of MID verification

MID is a common testing rules based on EN 50470-1, EN 50470-3 category A, B and C standards for all Europe and UK.

MID bears a label to certify ABB EQ range is type approved and verified according to MID Directive.

Advantages



To **facility management, consultant, landlord and tenant:**

- Peace of mind and fulfill due diligent to landlord and specifier
- Fairness of energy cost distribution between landlord and tenant, eliminate dispute on billing amount
- Low meter power consumption and remote monitoring – AMR (Automatic Meter Reading) reduces operation cost benefit environment
- Additional power meter functionality enhances energy management capability
- Din-rail mounting simplify installation and save space
- Readily availability at electrical dealer shop cut short project planning and lead time

Criteria to choose the **right metering**



- MID type approved and verified according to EN 50470-1, -2 and -3, Annex B and D
- Accuracy class 0.5S, 1 or 2
- Single phase or 3-phase (3-wire or 4-wire)
- Direct connection with or without CT connection
- Low power consumption (<0.8VA) with LCD display
- Non-resettable kWh reading and no re-calibration required throughout lifespan
- Verification report is mandatory available for 10 years after verified
- Programmable CT ratio, pulse per kWh, pulse width and alarm setting