

GET IN TOUCH WITH US



CONTACT US

Dr. Howard Porter
Managing Director, ESMIG

Klaus-Dieter Axt
Operations Director, ESMIG

+32 2 7068257
secretariat@esmig.eu

European Smart Metering
Industry Group
Boulevard A. Reyers 80
1030 Brussels
Belgium
www.ESMIG.eu

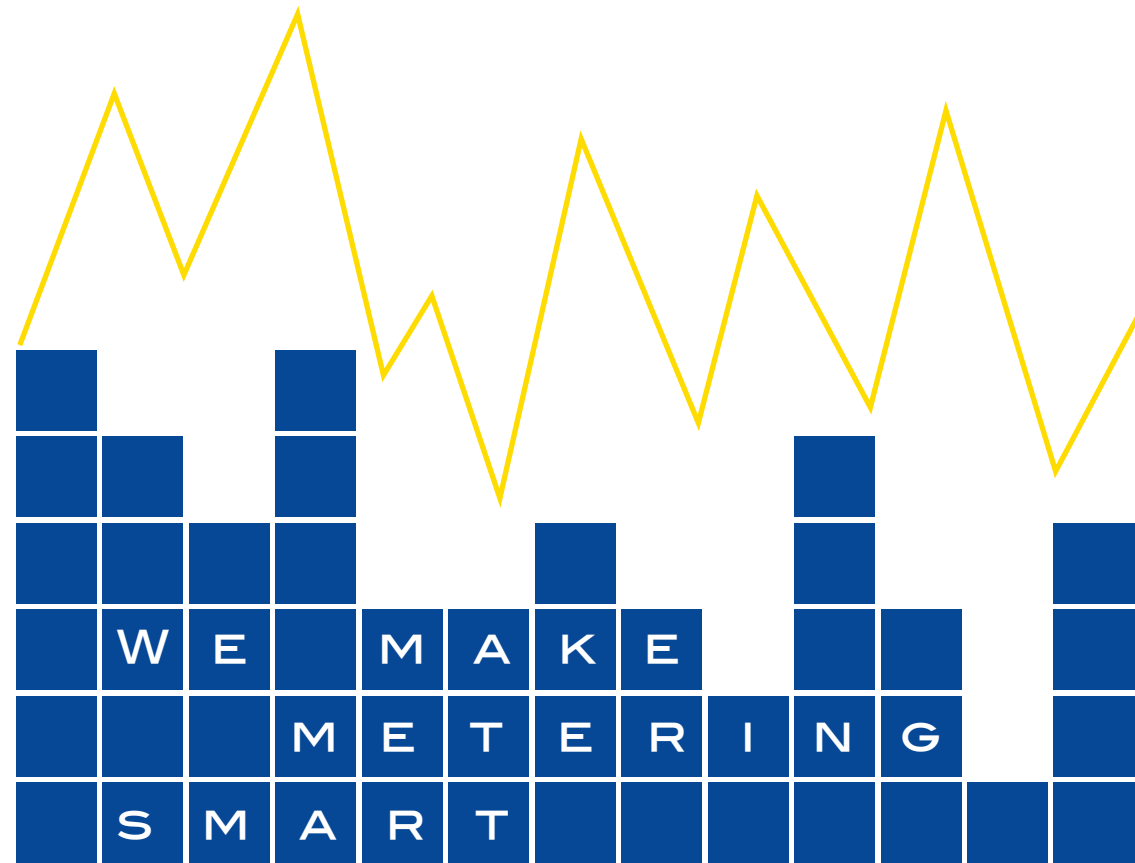
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is to join us.

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WE MAKE METERING SMART

The European Smart Metering Industry Group (ESMIG)



WE MAKE METERING SMART

The European Commission is currently reviewing its legislation on energy and gas markets, the environment and consumer rights. By the year 2020, the plan is to have:

- › reduced the output of greenhouse gases by 20 %,
- › improved energy efficiency by 20 %,
- › increased the percentage of renewable energy by 20 % and
- › raised the percentage of biofuels by 10 %.

Smart Metering has an important part to play in the application of this legislation. So it is no accident that the concept of Smart Metering is currently spreading across Europe.

The Smart Idea:

- › to inform consumers about their actual energy consumption and costs and related carbon emissions
- › to develop customers capacity to make smart choices about energy use
- › to provide utilities with first-class data on energy and water consumption enabling them to realise relevant cost savings while encouraging a more rational use of energy and water.



Private households in most European countries are usually only invoiced once a year and have very limited contact with their energy, water or heat provider. Business customers are usually invoiced on a more regular basis, but most only receive basic information.

Traditionally, the primary role of utility metering has been to accurately measure usage of electricity, gas, water and heat. Until now this usage data has been – with some exceptions – manually collected by the utilities. Consequently utilities have a lack of quality data on the consumption of their customers. This limits the frequency and accuracy of consumers bills, and their ability to engage with customers.

The metering market is currently undergoing considerable change, and as smarter metering systems become available, they are being viewed as the future for utility metering, providing significant benefits for utilities, and customers.

The roll out of smart metering across Europe will require significant coordination between all parts of the existing and emerging industry. To accelerate this process the leading companies in the European Smart Metering market have founded ESMIG.

ESMIG members cover all aspects of the smart metering market, including electricity, gas, water and heat measurement, meter communications, and data communications to utilities and households.

The foundation of ESMIG recognizes the fact that the relevant industries have a key role to play in:

- › the roll out and appropriate use of Smart Metering technology

- › a consistent technological roll out in each of the 27 Member States of the EU
- › the delivery of maximum benefit for energy and water customers, utilities and the environment.

Located in Brussels, the Industry Group will give advice and provide its expertise to key stakeholders such as the European Union institutions, EU member states governments and authorities, regulators, consumers and utilities on all aspects related to Smart Metering.

ESMIG has a number of objectives including:

- › the pan-European introduction and roll out of Smart Metering through harmonization and interoperability
- › the creation and implementation of consistent standards for metering and communications
- › the identification and promotion of best practice solutions for smart multi-utility metering.



SMART METERING TECHNOLOGIES

Smart Metering covers all the technologies that automate metering systems for electricity, gas, water and heat supplies. It has considerable advantages both for the overall energy consumption and the energy costs of all households and businesses as well as for the business processes of the energy industry. As an alternative to sending out meter readers once a year, smart metering systems can

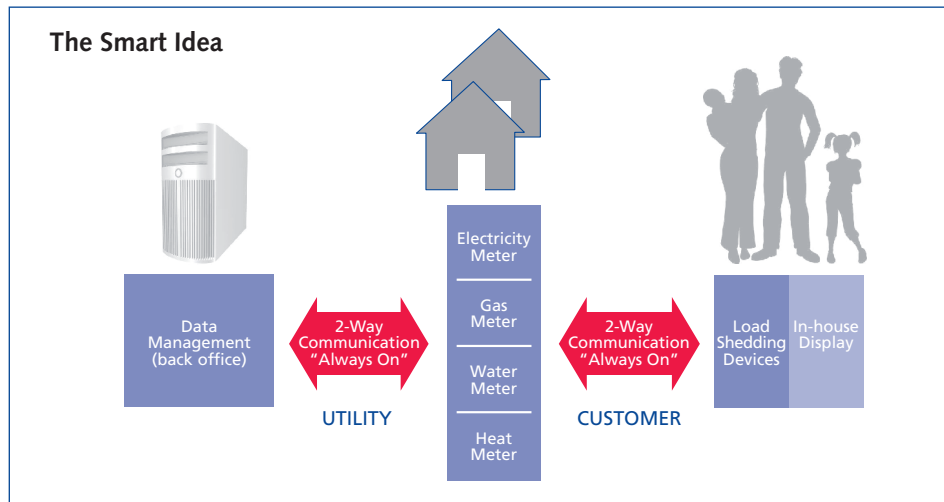
store consumption data and supply, via leading edge communication technologies, into the billing and management systems of utilities or distribution service operators. Once collected, this data can be used by utility companies and consumers to provide a range of other benefits.

Smart Metering technologies:

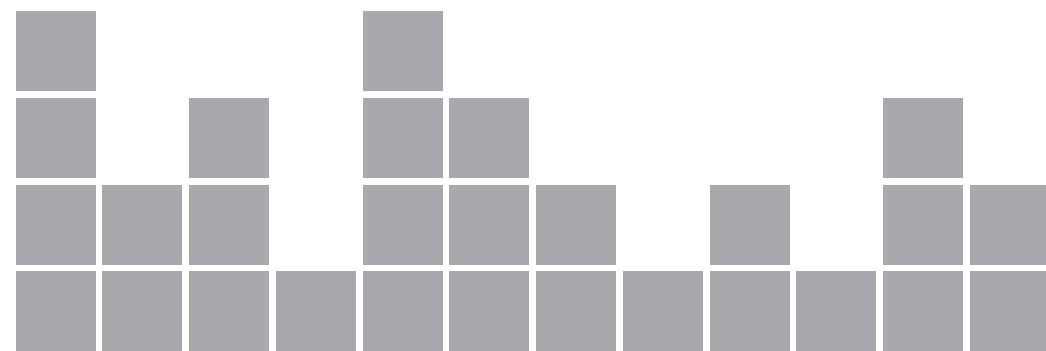
- › provide a genuine two-way information and communication channel between the meter and relevant parties and their systems
- › allow for automated meter reading and data collection on consumption
- › enable automated delivery, processing, management and usage of metering data
- › deliver detailed consumption data to customers, including costs and related carbon emission data which can be provided remotely (historical data) or local to customer (realtime data)
- › facilitate advanced energy services improving energy efficiency and encouraging a more rational use of energy.

For customers: Smart metering allows them to gain an insight into their energy consumption and provide the tools to stimulate behaviour change. Thus, Smart Metering empowers the consumer, giving the information they need to exercise more intelligent control over their consumption.

For utilities: Smart metering allows them to meet the requirements of the Energy Services Directive, and other energy and water related legislation. It also allows them to change the way they interact with their customers, for billing, data management, and energy services.



How systems interface with customers and utilities.



Utility companies will benefit from the following advantages:

- › a reduction in 'costs to serve'
- › open gateways for the delivery of energy services
- › assistance in the development of liberalised energy markets
- › help for revenue protection
- › monitoring of the generation from building renewables
- › support in demand response techniques
- › more effective grid management
- › a new communication channel to customers.

For both the EU and the national governments, Smart Metering will prove to be THE tool to entice consumers to manage their consumption better and reduce usage.

It is therefore a key weapon in the fight on climate change. Not only will Smart Metering help governments implement liberalisation of energy markets and allow the full realisation of the Energy Services Directive, but it will also lead the way to an improvement in service levels through richer billing information.

SMART METERING – AN ENABLING TECHNOLOGY

Fully operational Smart Metering systems across Europe will act as a catalyst for other technology advances, such as

- › Smart utility grids,
- › Smart housing and home communications
- › Household low carbon and renewable technologies
- › Household appliance management solutions.

Smart metering changes the relationship between the customer and utility, and the consumer's engagement with their energy and water use.

- › Promoting energy services
- › Encourages increased energy and water services for consumers
- › Facilitates demand response techniques and multi-tariff contracts
- › Enabling consumer choice on energy use and pricing

Smart Metering solutions will also influence related technical developments

- › communications' infrastructures for
 - Wide area networks
 - Local area networks
 - Home area networks
- › Communications protocols for household appliances, heating and lighting controls

ESMIG leading on smart metering standardisation

An essential requirement for the widespread adoption of smart metering throughout Europe is the adoption or development of European and world standards. ESMIG lead many of the standards committees in Europe and worldwide for all aspects of metering and work with all the major standardisation bodies: IEC, CENELEC, CEN, ETSI and WELMEC.

ESMIG's work will support the use of appropriate European standards in each member state. This approach will deliver safe, reliable and effective smart metering systems, and will ensure that innovation in systems design and deployment is not constrained.

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