

EURELECTRIC Policy Statement on Smart Meters

A EURELECTRIC position paper



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1. Six recommendations on Smart Metering

On behalf of the European Distribution System Operators (DSOs), EURELECTRIC expresses its strong support towards the roll-out of Smart Meters in the European Union. EURELECTRIC sees this positive move as a first step towards the development of Smart Grids.

EURELECTRIC views Smart Metering as a very promising technology that can substantially empower electricity customers to become active managers of their consumption. By the same token, we believe that smart meters will greatly contribute to a more efficient distribution grid management. As such, they will specifically help achieving the objectives set by European policymakers to reduce Greenhouse Gas Emissions and increase energy efficiency. In order to optimize Smart Meter roll-out in Europe, EURELECTRIC calls on policy makers and national energy regulators to consider the following 6 main recommendations both when implementing and enforcing the 3rd Electricity Directive:

1. **The EU Smart Meter roll-out should be optimized.** It should occur on a geographical basis so as to maximize economies of scale and reduce costs. Likewise, only essential functionalities should be put in the meter installed by DSOs. Customised services could be added by interested consumers (directly or indirectly through retailers or energy service providers).
2. **National Regulatory Agencies should clearly indicate that Smart Meter roll-out will be tariff-financed.** Smart Meters will not only bring benefits to the whole length of the electricity value chain, they will also carry externalities to society as a whole.
3. **Smart Meters should provide frequent and precise information to maximize benefits** in terms of billing, demand-side-management, grid load planning and interruption management. They should also be equipped with a bi-directional communication functionality.
4. Considering the constant improvements in Smart Metering technologies, **rolled-out Smart Meters should be able to be remotely upgraded to keep costs down.**
5. **Electricity retailers and energy service companies should be put in a position to enable customers in making use of Smart Meter information to reduce peak consumption and CO₂ emissions. In the areas where DSOs are responsible for managing metered data, they will share relevant energy market data transparently with licensed market participants.**
6. Following the 441 Mandate issued by the European Commission, **EURELECTRIC welcomes the on-going standardisation efforts at the European Union level to set up open communication interfaces.** However, in order to reach full inter-operability of Smart Meters, **EURELECTRIC calls on the European Commission to issue another mandate to the European standardisation bodies:** its objective would be to reach standardised data exchange protocols so that Distribution System Operators (DSOs) can improve verified customer data transfer to the service providers of the customer's choice.

2. Introduction

The newly adopted EU Directive 2009/72/EC (also known as the 3rd Electricity Directive) sets out, in detailed provisions, a mandatory roll-out of Smart Meters¹ in the European Union.

Over the past year, the European Commission has repeatedly stressed that it sees the adoption of Smart Meters as a tool both to enhance competition on retail markets (easier to switch supplier) and foster energy efficiency (thanks to better grid operation). EURELECTRIC has indicated its support for further actions along these lines.

With the 3rd EU Electricity Directive, a clear timeline for a European Union Smart Metering roll-out has been set. It stipulates indeed that *“Member States shall ensure the implementation of intelligent metering systems”* which *“may be subject to an economic assessment of all the long-term costs and benefits to the market and the individual consumer or which form of intelligent metering is economically reasonable and cost-effective and which timeframe is feasible for their distribution”*. The Directive also states that the mentioned assessment shall be conducted by 3rd September 2012 and that *“where roll-out of smart meters is assessed positively, at least 80 % of consumers shall be equipped with intelligent metering systems by 2020”*.

3. EURELECTRIC views

In this paper, EURELECTRIC highlights the remaining barriers to a smooth roll-out of Smart Meters in Europe and outlines key considerations that could help improving the design of the future Smart Metering framework. This policy statement should be seen as a complement to EURELECTRIC's earlier position paper on Smart Metering².

EURELECTRIC views Smart Metering as a very promising technology that can substantially empower electricity customers to become active managers of their consumption. Smart Meters will improve - through accurate billing - the customer's knowledge about his/her electricity consumption thereby increasing customer awareness of energy end-use. Besides, Smart Meters will allow an optimization of the customer processes, making them more efficient and more reliable, thus leading to enhanced supplier switching and higher customer satisfaction.

By the same token, we believe that Smart Metering will greatly contribute to a more efficient distribution grid management.

Since Smart Meters will not only bring benefits to the whole length of the electricity value chain, and will also carry externalities to society as a whole, EURELECTRIC calls on EU Member States' National Regulatory Agencies to make the commitment that Smart Meter roll-out will be tariff-financed.

¹ The Directive also gives a definition of what is exactly meant by “intelligent metering systems”: they are *“electronic devices that can measure the consumption of energy adding more information than a conventional meter and can transmit data using a form of electronic communication”* while having the *“ability to provide bi-directional communication between the consumer and supplier/operator”*.

² “Building a European Smart Metering Framework suitable for all Retail Electricity Customers, Ad Hoc Group on Smart Metering”, June 2008. Available for download on EURELECTRIC's website www.eurelectric.org

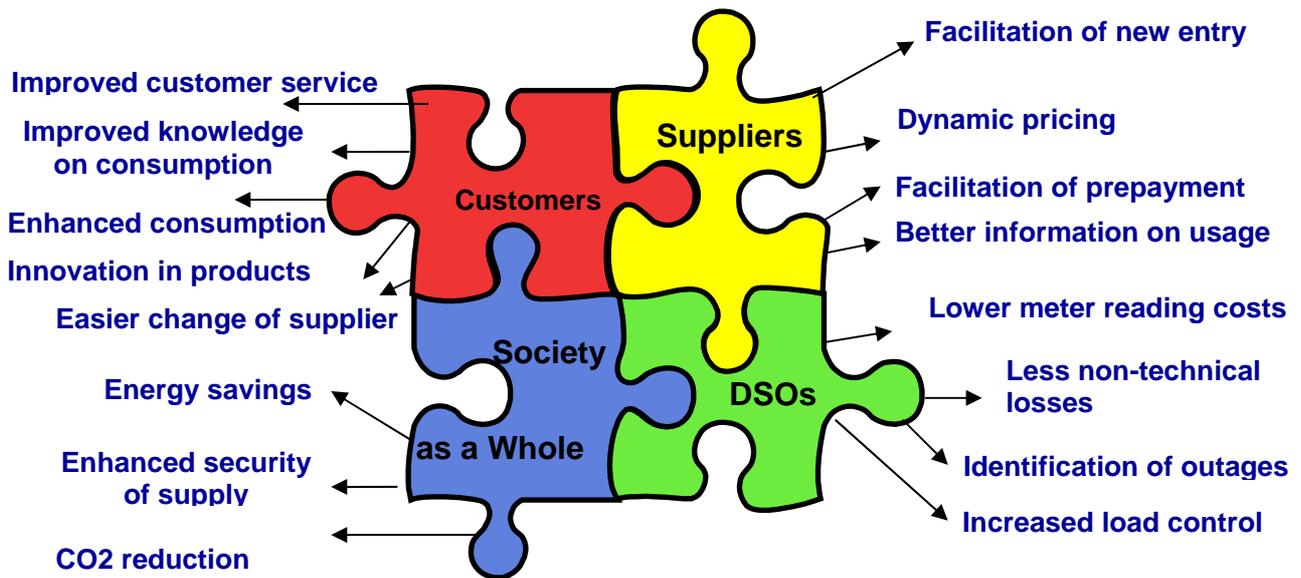
With regard to the functionalities of Smart Meters, EURELECTRIC considers it of utmost importance that the number of Smart Metering functionalities remains limited to essential requirements in the view of customers. This would keep costs down without hindering the proportion of customers interested in actively managing their electricity consumption - e.g. through information portals - from using additional functionalities.

By the same token, considering the constant improvements in Smart Metering technologies, EURELECTRIC believes that rolled-out Smart Meters should be able to be remotely upgraded to keep costs down.

Lastly, EURELECTRIC welcomes the on-going standardisation efforts at the European Union level, following the 441 Mandate issued by the European Commission. However, in order to reach full inter-operability of Smart Meters, EURELECTRIC calls on the European Commission to issue a parallel mandate to the European standardisation bodies. Its objective would be to reach standardised data protocols and data structure so that Distribution System Operators (DSOs) can improve customer data transfer from one supplier to the other (both inter & intra DSO areas).

4. Ensuring a fair regulatory environment

The benefits of Smart Meters are spread along the length of the electricity value chain.



Indeed, **Smart Metering will lead to:**

- More accurate information on electricity consumption and enhanced possibilities to control this consumption, resulting in improved possibilities for **energy-aware customers** to reduce bills.
- Better meter readings, improved automation of data management systems and increased customer service (e.g. introduction of new products) **for the suppliers.**
- Optimization of remote operation along with a better operation of the distribution network, i.e. through increased information on the power quality and on the load; better follow-up on quality on delivery, on compensations for damages and outages, better conditions for network analyses, improvements in asset management and in revenue control **for Distribution System Operators.**
- Energy savings and the associated avoided CO2 emissions **for society as a whole**, thereby helping achieving energy efficiency aims.

Considering these widespread benefits, EURELECTRIC sees reasonable justification for all the parties benefiting from the externalities of a European Smart Metering roll-out (see graph above) to be associated to the financing process. EURELECTRIC thus recommends that EU Member States' National Regulatory Agencies make the commitment that Smart Meter roll-out will be tariff-financed.

When clear responsibility of the Smart Meter roll-out is given to Distribution System Operators, this will allow economies of scale and reduce costs, thereby optimizing the process.

Besides, EURELECTRIC calls on national regulators' good faith in taking all externalities of Smart Metering roll-out into consideration when drawing up the guidelines of the cost-benefits analysis they will conduct.

Lastly, EURELECTRIC believes that electricity customers need to be 'taken on board' to ensure optimal use of smart meters since the achievement of energy efficiency gains remains ultimately in their hands. Policymakers could therefore contribute in better informing customers on how they can become more efficient in their energy use. Their energy awareness needs indeed to be raised.

5. Regulation, technology and standards

The roll-out of Smart Meters in the European Union will imply huge investments³. Given the scope of investments at stake, EURELECTRIC sees a clear need to avoid being locked in either a technology or limited functionalities as this would result in stranded costs.

Consequently, EURELECTRIC welcomes the on-going standardisation efforts at the European Union level, following the 441 Mandate issued by the European Commission. However, in order to reach full inter-operability of Smart Meters, EURELECTRIC calls on the European Commission to issue a parallel mandate to the European standardisation bodies. Its objective would be to reach

³ As an example, the Italian and Swedish roll-out amounted to 2 bn euros and 1-1.5 bn euros respectively.

standardised data protocols and data structure so that Distribution System Operators (DSOs) can improve customer data transfer from one supplier to the other (both inter & intra DSO areas).

While regulators should strictly refrain from mandating which Smart Metering technology the power industry should adopt, they should be fully aware that Smart Meters manufactured in the two to three years to come, will offer advanced functionalities. Regulators therefore face a trade-off between the customer benefits due to higher potential of technologies and the quick adoption of Smart Meters. Considering the constant improvements in Smart Metering technologies, rolled-out Smart Meters should be able to be remotely upgraded to keep costs down.

Smart Meters should be equipped with basic functionalities to support DSOs' need for development of processes and operations and to be a part of a future Smart Grid solution. However, EURELECTRIC considers it of utmost importance that the number of functionalities of Smart Meters is limited to essential requirements in the view of customers so as to keep costs down without hindering the proportion of customers, who are interested in actively managing their electricity consumption - e.g. through information portals - from using additional functionalities. EURELECTRIC would like to stress that the Smart Meter has to be capable of operating and communicating in an open manner with any DSO.

Lastly, EURELECTRIC is convinced that national implementation framework for Smart Meters should not oversee the need for the development of compatible retail markets in the European Union.



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