FACTSHEET

Towards smarter energy markets

The times when all consumers had to do with their energy supply was to open their door to the energy employee to read their meters every now and then are over. In future, consumption data will be read remotely, consumers will manage their energy via their smartphone and a whole raft of companies will offer advice on how to optimise energy consumption.

The starting point: A smarter (or intelligent) metering system

The starting point of smarter retail energy markets is the smart meter; an electronic tool which measures the details of your energy consumption and communicates this data to an external party such as the company managing the energy grid.

Suppliers, as well as third parties, if you so agree, might want to use these information about your consumption in order to offer you new tariffs and services. In addition, this device can send this metering information to a display in your house or your computer screen informing you how much energy you are using.

Sounds handy, but do we really need them?

Expectations are sky-high. However, with the average cost of installing a smart metering system being between €200 and €250, the business case in terms of consumer benefit is in many countries not yet overwhelming. Still, network operators hope to manage their grids better and at lower cost due to instant feedback on the amount of energy households consume. Some companies will be eager to sell their customers personalised services as it gives greater insight into users' consumption patterns.

But what about the benefits for consumers?

One good thing is: inaccurate billing should become a thing of the past because energy companies will know exactly how much energy their customers have consumed. Due to accurate bills and access to real-time consumption data, consumers may become more aware of their usage.

Smart meters and other smart appliances will also open the door to a range of new services which could help consumers to better control consumption and help them produce their own energy.

Much ado for nothing?

As mentioned in recent European Commission reports, available data indicates that a smart metering system can deliver energy savings of only around 3%. Such rates do not often justify expected costs of several hundred Euros, as required here for a smart meter upgrade. It is possible that the analysis will be positive for some segments of the population. However, assuming the entire population will benefit from having a smart meter remains questionable. Furthermore, smart meters have a much lower life-expectancy than traditional meters leading to additional replacement costs.

[1] Benchmarking smart metering deployment in the EU-27 with a focus on electricity, Report from the European Commission, June 2014.

Other issues also arise: variable tariffs coming with smart meters will add further complexity to a market which customers already find hard to navigate. At the same time, the provision of new, innovative tariffs and products as well as associated services can make the market even more complex and thereby weaken the rights and consumer protection.

Also of relevance are data protection and security issues. Businesses will be able to know much more about private consumer behaviour such as how many people live in a house, when its inhabitants are on holiday or which appliances they are using.

So... thumbs up or down for making our energy markets smarter?

The question is: how to ensure all consumers benefit from making the energy market smarter? Are smart meters essential to get there or should they be shunned altogether? Probably not, but some substantial caveats need to be built in:

- **Choice:** No consumer should be forced to use a smart meter. Research actually shows that no energy savings are observed when smart meters are installed without the explicit agreement of consumers.

- **Guarantees:** Policymakers must put clear rules in place guaranteeing that the smart metering roll-out is cost efficient and that costs and benefits are fairly shared among all stakeholders who benefit from the new technology.

A smart energy market checklist

The energy market will change. Whether it benefits consumers will depend on some safeguards, see our checklist below:

- If consumers get a smart meter, they should be accurately billed, with the possibility of flexible payments throughout the year.

- If consumers are supposed to use their consumption data to compare market deals or communicate this information to a third party, it must be accurate, understandable, up-to-date, in a user-friendly format and include monetary information.

- Strong data protection and privacy standards must be the default setting in a smart energy market. Consumers should be able to decide to whom, when and for what purpose they allow access to their own consumption data.

- In order to avoid future 'lock-in', smart meters must be easily upgradable to cope with future technological innovations. Smart meters, displays, appliances and all the features of smart homes which could be used in the future must be interoperable.

- Demand response (such as consumers adapting their consumption to changes in energy prices) and energy services should evolve to the benefit of the final customers. Consumers will need advice and attractive incentives to engage with the market.