

# Preparing for a smart meter tsunami?

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**Oliver Iltisberger** looks back at the last year and finds that industry and policy are again looking in the same direction, at least for now.

The end of the year is often a time for reflection: how far we have come, where do we stand and what lies ahead? With smart metering in Europe, we are at a halfway point. It has now been just over five years since the so-called '3rd Energy Package' came into force, and according to the provisions in that package, 80 per cent of European households should be enjoying the benefits of smart metering in five years' time. How far are we along that path and where are the deployments and the policy debates taking us?

Around the time that the 3rd Energy Package was being passed, there was a general feeling that a "smart meter tsunami" was going to wash over Europe. Here was a technology that was going to fundamentally change distribution network operations and was the greatest consumer empowerment tool to be introduced in the energy sector in the last 100 years. Moreover, smart metering was going to bring digitalization and telecommunications to an industry still enamored with copper and steel. The meter was going to move from being a mechanical cash register to a high-tech operational component of the network.

The smart metering tsunami didn't hit Europe; it changed direction in the middle of the Atlantic and swept over North America. At Landis+Gyr, in 2008 our turnover in EMEA was more than half of the company's total. By 2013 it had fallen to less than 40 per cent – with corresponding increases in North America. The reason was simple: in contrast to Europe, the US had a decisive government that was willing to financially drive investment in energy infrastructure.

Watching these developments unfold, the smart metering industry began sounding the alarm that the EU was not going to meet the 80 per cent by 2020 target. Of course, we knew that having 8 in 10 European households equipped with a smart meter is not a goal in and of itself. However, all of the other European policy goals: renewables, CO<sub>2</sub> reduction, and energy efficiency were dependent upon investments in the grid, and the key was the "last mile" from the substation to the point of consumption, where the network is

blind. Smart metering is the foundation of the smart grid, and smart grids are the pre-requisite for the efficient, secure and carbon-free energy supply system Europe is striving for.

While the smart metering industry in Europe was gasping for air commercially, the European Commission was still chugging along with task forces, policy papers, communications on smart grids, recommendations on smart metering and seemingly innumerable reports by the Joint Research Centre on CBA's, Pilot Projects, etc. Seldom was the "Brussels Bubble" more evident than in the disconnect between the policy discussions in Brussels and smart metering developments on the ground.

To be fair, most of the problems were in the Member States, and there were, of course, some very good policy recommendations, both from the Commission and from the energy regulators, but very seldom were they timely. They were either too late, in the case of the smart metering recommendations, published three years after agreement on the 3rd Energy Package, or were too far ahead of concrete developments in the Member States.

At times, the policy discussions were even counter-productive: a minimal number of rollouts were taking place, in other Member States tenders were being published, and suddenly a discussion was started in Brussels on data management models. The last thing that either the electricity industry or smart metering providers needed was that kind of policy uncertainty.

In June of this year, the Commission published its long-awaited Benchmarking Report on smart metering. The industry was right: the EU is not going to meet the 80 per cent by 2020 target. We even doubt that the EU will achieve the 72 per cent coverage the Benchmarking

Report predicts.

Nonetheless, something changed in 2014. In the course of the year both the industry and policy makers, independently of one another, saw that smart metering is really coming to Europe. It will be more like a rising tide than a tsunami, but it is coming. Although the deployments are taking longer and coming with lower volumes than the industry anticipated, we are seeing a record number of tenders scheduled for the coming year.

The Commission is now also looking at not simply getting smart metering into the field, but rather what kind of smart meters, i.e. what are the functionalities, are being deployed. In the Commission's opinion, the systems deployed thus far, have been "little more than expensive billing systems". They are right.

Only with a robust functionality will smart metering be the backbone of the smart grid. It must be able to support demand side response measures, the integration of micro-generation and small scale renewables, and perhaps more importantly, provide the infrastructure base upon which new business models for retailers, energy services companies, aggregators, etc. can be developed. Some call this the "smart market". Although the name may be a misnomer, the idea is correct: smart technology will open up business and customer service opportunities impossible in the conventional energy supply system.

Now with five years to go before that "policy goal-laden year" of 2020, both the industry and policy makers are beginning to look beyond smart metering to the smart grid – separately and together.

Landis+Gyr made a number of acquisitions in 2014 that move it from a smart metering solutions provider into the smart grid space. In May, Landis+Gyr acquired PowerSense, a smart grid sensor and monitoring company and for the first time is moving beyond the substation into the low and medium voltage network. A month later, we announced the acquisition of GRIDiant, a data analytics company focused on the distribution network. It is the natural progression beyond smart metering, but in contrast to the policy debates, we were not ready to go there until the time was ripe.

Interestingly enough, at the same time, the interest of the policy makers has returned to smart metering, but with the intention of creating a platform for future consumer services. A number of different initiatives at the EU level are examining things such as functionalities and services beyond the metering system.

In its Benchmarking Report, the Commission noted that only half of the Member States were following the recommended smart metering functionalities. To be honest, none of these recommended functionalities are cutting edge or Earth-shattering. They are as basic as providing information directly to the consumer and supporting advanced tariff systems.

Two inter-related issues are increasingly in the focus of policy-making in Brussels, and in both of these smart metering will have a decisive role to play: the energy retail market and demand response. After over 20 years of working on the framework for the energy wholesale market, the Commission is now devoting a substantial amount of brainpower and ink to retail markets. That is encouraging, because that is where end-consumers will see the most direct benefit of European policy. Therefore, it is not surprising that the Commission is also examining the functionality needed for the smart meter to not only communicate with the network operator, but also to enable and deliver direct consumption information and energy services into the home.

If the most basic benefit of smart metering is accurate bills, consumers, who will most likely pay for the smart metering systems via grid-use fees, deserve to get a whole lot more. Likewise, demand response and bringing flexibility into the energy supply system are also getting a lot more attention these days and will continue to do so. The Commission's Smart Grids Task Force has been working on a report on demand side flexibility and the Council of European Energy Regulators (CEER) is devoting its annual conference in 2015 to energy market flexibility and demand response.

It is not that the industry and politics are moving in lock-step. On one hand, that would be too good to be true but on the other probably not all that healthy. Now at least, however, we are looking in the same direction, and the policy debates reflect developments that the smart metering industry as a whole is examining. For a very long time, European legislation for smart metering was in place and the technology was available but the deployments were lagging. Regulation will never keep pace with technological developments but it suffices to be on the same path.

Are we in for another "accordion" action, where investments on the ground fall behind the technology available and the policy discussions, and all come together again years later? I hope not, but for right now the squeeze-box is close together. We'll see where we are in 2020.

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