

ERGEG

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An ERGEG Public Consultation Paper on Draft Guidelines of Good Practice on Regulatory Aspects of Smart Metering for Electricity and Gas

Vattenfall Nordic welcomes ERGEG's report and fully agrees that setting the minimum requirements is the correct starting point for harmonisation of Smart Metering in the European market. However, Vattenfall Nordic is in favour of even further standardisation and harmonisation of regulations to secure a socio-economical optimum for all market parties in the rollout and utilisation of Smart Meters. We will elaborate our view in detail regarding the minimum and optional requirements later in this document.

Nordic countries, such as Finland and Sweden have been forerunners in Smart Metering and there are lessons to be learned from these countries in planning the roll-out elsewhere in Europe. All of Vattenfall's 1,3 million distribution customers in the Nordics have an AMR-meter and we are constantly gaining valuable experience regarding e.g. data management and customer benefits.

The focus in ERGEG's report has been the customer and the regulatory perspective. Vattenfall Nordic would like to stress that in technology changes such as Smart Grids and Smart Metering, it is crucial to analyse the situation based on all customer groups as well as the whole value chain in the market. The costs and benefits are not always aligned or equally motivated in different interest groups and therefore it is important that legislators and regulators have a comprehensive approach in their directives and recommended practices. The need for a holistic approach is well-acknowledged by ERGEG in its recommendations for cost benefit analysis but Vattenfall Nordic sees that this approach should be implemented in all decision-making and analysis by the group. We would like to further comment on the report from the perspective Smart Metering of electricity.

ERGEG states that the Smart Metering rollout should be done in a cost-efficient and non-discriminatory way. The rollout should not cause major stranded investments for the countries that already have installed AMR-meters that may not be applicable to all minimum requirements by ERGEG. To avoid stranded investments in the future, Vattenfall Nordic encourages ERGEG to immediately implement minimum standards for all new meter installations within the European Union. This way the technology shift can be started immediately without any additional drowned costs by “incorrect” investments. However, based on the knowledge from the Nordic rollouts, Vattenfall Nordic would like to point out that this approach will not be sufficient in itself to secure the cost effectiveness and non-discrimination of the roll-out. Vattenfall Nordic believes that the Smart Metering rollout should in the first case be done in full-scale to both be cost effective and to gain the largest amount of benefits to the customers and also to the whole energy market. All European customers should be entitled to same minimum services regardless of the DSO’s size or geographical position. To secure this we suggest that ERGEG will clearly indicate that Smart Metering rollout will be tariff-financed in all national regulatory models.

Vattenfall Nordic recommends that ERGEG will strongly support the development of open standards for meters and metering. Standardisation will be crucial to increase cost efficiency and improve competitiveness in the market. A starting point for the standardisation could be the result from the Smart Grids Task Force work that soon will present its final report.

When analysing the benefits of Smart Metering, the comprehensive benefits to the functioning of the electricity market and different market parties are often forgotten. Based on Vattenfall’s experiences in the Nordic countries, Smart Meters can offer several benefits to the operations of a DSO. For example, the interactive communication possibilities and data provided by Smart Meters should be fully utilised in network operations, balance settlements and investments and maintenance planning. These benefits gained by the DSOs, assuming effectively steering regulation models, will then in turn also indirectly benefit the customer.

Detailed comments to suggested minimum recommendations:

Recommendation 1. Information on actual consumption, on a monthly basis

Informing the customer about his/her energy consumption will be crucial to incentivise the customers to actively participate in the market and be more energy efficient. According to a Customer Information Pilot Study made by Vattenfall Nordic, monthly consumption information is not sufficient for the customer to understand his/her consumption or to actively adjust it. Providing the customer access to hourly, or at least daily, consumption data has shown to be crucial for the customer to analyse their consumption patterns. Hourly settlement will be reality in Finland by 2014 by legislation and there are on-going investigations in Sweden (Energy Market Inspectorate) for hourly metering/settlement. Vattenfall Nordic emphasises that the customer information should be delivered in a cost effective and standardised way, for example by using a web portal.

Recommendation 2. Accurate metering data to relevant market actors when switching supplier or moving

Vattenfall Nordic sees that remote reading should definitely be a minimum requirement for the new meters to be installed; it is cost efficient and environmentally friendly. Accurate metering data should be an absolute minimum requirement for the European DSOs.

Recommendation 3. Bills based on actual consumption

Vattenfall Nordic strongly believes that customers are entitled to receive accurate bills based on their actual consumption. However, if the customer so wishes, the DSO should be able to offer alternative billing methods to stabilise the economical burden to e.g. fragile customers. Also in the future, the meter data collection will always lack some fraction of meter readings that will require special handling. If the missing values are not handled in an efficient manner, this will imply large handling costs for the DSO.

Recommendation 4. Offers reflecting actual consumption patterns

As mentioned above, Vattenfall Nordic believes that optimising the use of electricity and increasing customers' participation in the market requires metering in shorter intervals. The absolute minimum interval should be 24 hours and hourly metering should be recommended in the long run when implemented in a cost effective way. In the first phase we see that hourly metering values and settlements could be offered as an optional chargeable service to the customers. In the long run, hourly measurement for all customers will be beneficial for the understanding, transparency and functioning of the market with increasing access to real time information. Vattenfall Nordic notes that hourly metering in itself does not necessarily drive the customer to energy efficiency or demand response; there needs to be attractive business models and products available for that.

If the number of different ToU registers needs to be defined, the natural minimum will be two; otherwise there will be no ToU tariff. Different conditions on different markets call for different registers. For example, local/regional conditions based on summer/winter season, power mix and load curves can make it relevant to have different time of use registers, both in terms of number and - naturally - price level.

For customers that both generate and consume electricity, Vattenfall Nordic emphasises that the energy should be measured separately in both directions to enable use of different prices for input and output. Small customers may have an option to "net" the different directions during each month. This means that the metering is "netted" monthly but only on the invoice. We also see that increase of the amount of consumers who also have own production may lead to a change in tariff structure towards more fixed tariff components and/or tariff components based on demand.

Recommendation 5. Power capacity reduction/increase

Vattenfall Nordic sees the power capacity adjustment as very positive for the customer. This could be referred to as “Demand Side Participation” and offer customers the choice to reduce power consumption based on price signals.

Capacity management will also provide benefits to the other stakeholders such as e.g. TSOs and DSOs. In case of regulated businesses, a well-functioning regulatory model should oversee that also this type of indirect benefits will benefit the customer in the long run.

Recommendation 6. Activation and de-activation of supply

Remote activation and de-activation of supply should be part of the minimum requirements of the meters. However, administrator rights for remote control must be enabled for the DSO for e.g. updating the meters.

Recommendation 7. Only one meter for those that both generate and consume electricity

The modern meters can register both injected and consumed energy and Vattenfall Nordic agrees that one meter is sufficient also for those customers who produce electricity. However, since the meter is a part of the DSO network and hence national infrastructure, the decision of the specifications for the meter cannot be left to the customer but should always be approved by the DSO. Standardisation of meters and metering could solve this issue from both DSO and customer perspective.

Recommendation 8. Access on customer demand to information on consumption data

Vattenfall Nordic sees that the DSO should be responsible for supplying the customer consumption data via a standard interface, e.g. web portal. In addition to consumption data, we note that also injected energy should be included in the reporting.

We also note that integrity issues between market actors regarding consumption data are complex and require detailed analysis.

Additional recommendation. Minimum requirements for new meters

After several years of large-scale experience in the Nordic countries, Vattenfall Nordic sees that ERGEG should without delay introduce standardised minimum requirements for all new meter installations and to confirm the deadline of 80 % by 2020 for replacing the old meters to meet the minimum requirements. The minimum requirements should be designed in the way that in the future, the new installed meters do not under their lifetime of approximately 10-15 years create bottlenecks, sunk costs or hinder the development in the electricity market.

In our opinion, the standardised minimum requirements for meters should at least include

- A metering function that is capable for hourly metering of both consumption and generation
- A function to remotely update the meter when needed

- A function to remotely disconnect or connect power
- A customer interface to meet customer needs beyond the meter

Vattenfall Nordic