



European Federation of Local Energy Companies
Confédération Européenne des Entreprises Locales d'Énergie

E7/100903-ERGEG-PC-...final.doc

ERGEG Public Consultation

Draft Guidelines of Good Practice on Regulatory aspects of smart metering for electricity and gas (ERGEG consultation paper – Ref E10-RMF-23-03 – 10 June 2010)

CEDEC Position Paper

CEDEC defends the interests of local energy companies at European level.

CEDEC represents more than 1500 companies with a total turnover of about 100 billion Euros, and more than 250.000 employees. Together, they serve 60 million electricity and gas customers.

These predominantly medium-sized local energy companies have developed activities as electricity and heat generators, electricity and gas distribution system operators – including metering activities - and suppliers of energy and energy services.

CEDEC welcomes the public consultation on the subject of the Draft Guidelines of Good Practice on Regulatory Aspects of Smart Metering for Electricity and Gas of ERGEG and expresses its thanks for the opportunity to comment.

CEDEC fully supports the objective of ERGEG to create suitable framework conditions for the implementation of the requirements arising from the 3rd Package in the area smart metering.

However, the fundamental issue is that the introduction of smart metering and ensuing services will initially require a high degree of investment, which must be undertaken primarily by the local utilities or distribution system operators. Interoperable and economical solutions suitable for massive roll-out are currently still lacking for this purpose.

Suitable framework conditions, which guarantee both the security of the investment and an increase in energy efficiency, are therefore necessary for the further development of smart metering.

A crucial element is the regulatory financial framework for the investments of the DSO/metering operator, like ROI, depreciation periods (that should correspond with the technical reality) and compatibility with imposed cost reduction programs.

1. Introduction

On the GGP – relation to European legislation ?

The draft GGP contain a set of minimum customer services for retail market customers. ERGEG recommends that Member States stipulate that the minimum services are a requirement for the industry (metering operator, DSO, supplier), and “should be imposed on the industry”. On the other hand it is written that the GGP are intended to serve as a guidance for Member States, NRAs and industry. Clarification is needed on the enforceable character of the recommendations of this GGP in the framework of the existing European legislation.

On roles and responsibilities – DSO normally includes metering operations

We welcome that ERGEG explicitly does not propose which stakeholder should be responsible for providing the metering service to the customer, due to possible differences in market design across Europe.

It should be noted however that :

- in most EU Member States – except UK and recently (partly) Germany - the metering activity for household customers (where this report refers to) is a regulated activity.
- In most EU Member States the DSO is also metering operator, owning the meter (in particular for the household consumer) and providing metering services. Only in UK and Germany there are fundamental variants to this meter ownership and metering operator model.

2. Customer services - electricity

2.1.Draft recommendations on minimum customer services

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

With regard to the intervals, at which users of smart meters should receive information, differentiation has to be made between mere information and billing-related information. Fixed and comparable intervals must be chosen for the information on consumption (e.g. daily, weekly, monthly and annual values). At most monthly values should be used for the actual billing.

A fixed rule that billing-related data for the purchase of energy and feed-in should be received at least once a month, seems to make little sense however. The relevant intervals (monthly, quarterly, yearly) should be able to be chosen freely by the customer.

“On a monthly basis” or “frequently enough” ?

It is foreseen in the 3rd Package that customers are properly informed of actual electricity / gas consumption and costs “frequently enough to enable them to regulate their own electricity / gas consumption”, but also taking account of the capability of customer’s metering equipment.

The interpretative note that the European Commission’s services have written on directive 2009/72/EC considers that “receiving information on a monthly basis would be sufficient”. It should be clear that this position does not reflect the agreement that was reached with

the European Parliament during the negotiations on the 3rd Package : the Parliament had this “monthly basis” explicitly deleted from the initial Commission’s proposal.

The 3rd Package stipulates also that the implementation of smart metering systems may be subject to an economic assessment which form of intelligent metering is economically reasonable and cost-effective and which timeframe is feasible for their distribution. Energy Services Directive mentions in article 13 – when talking about the provision of new individual meters – the problem of cost-effectiveness in relation to the estimated potential savings of the customer.

This “recommendation” imposes a result (monthly information) that can only be realized through the massive and immediate installment of smart metering systems. This recommendation contains an obligation that is not foreseen in European legislation and that does not take account of elements mentioned in existing European directives in this field (assessment; economically reasonable; cost-effective(ness); feasible; in relation to the estimated potential savings of the customer).

Recommendation 2: Accurate metering data to relevant market players when switching supplier or moving

Remote reading does not currently form part of the technical minimum requirements with regard to smart meters in some of the member states where these minimum requirements already exist (e.g. in Germany). In case there is an open metering market, this functionality is therefore to be left to the competition.

As long as this functionality has not been defined and realised as a minimum requirement, remote reading should also not be the basis for a recommendation on the data quality or for reading intervals and frequency.

Should remote reading be generally implemented as a basic function, fast access to the consumption data of the meters can speed up or improve the process of switching supplier, but an increase in the data quality or switching quality is not necessarily guaranteed. In this case however the aspects of data protection and appropriate intervals (see comments on recommendation 1) should also be taken into consideration.

Recommendation 3: Bills based on actual consumption

It should be noted that to the industry bills based on “actual consumption” differentiate from bills based on “estimated consumption”. First of all it should be mentioned that bills are only prepared in a few exceptional cases on the basis of estimated values – for example in the case there is no meter present. Normally the consumption values are read by suppliers or the customer himself (as a rule annually). The payments are made on the basis of the past consumption typical for the household. These payments are constant deductions and are set off against the actual consumption at the end of the billing period. As a result the customer has budgetable and constant expenses for his energy purchases throughout the year.

As already mentioned in recommendation 1, the billing should be carried out at most monthly or at greater intervals. Billing on the basis of current consumption at shorter intervals would not be feasible for reasons of data protection and practicability. In our view however the customer should have the possibility of deciding himself on the frequency of the billing, since the frequency of the billing also affects the costs.

Regardless of this, the customer can be informed about his actual consumption directly by the meter or in some other form.

Recommendation 4: Offers reflecting actual consumption patterns

Statutory regulations on the introduction of time- and load-variable tariffs already exist in some member states (e.g. Germany). The energy suppliers have the possibility of offering corresponding products - also on the basis of smart meters.

The use of shorter intervals than that of the monthly reading is not possible however for billing purposes (for example in Germany) based on the prevailing Verification Act, which has also not yet been standardised Europe-wide.

Merely information concerning values from shorter intervals is possible, but can also lead to privacy issues with consumers if applied without consent. The possibilities of the energy suppliers have been severely restricted hitherto by the prevailing Verification Act. There is a need for European standardisation and revision.

4. a) Question to stakeholders:

When interval metering is applied, which interval should be used for customers and those that both generate and consume electricity? Please specify timeframes and explain.

- 1. Less than half an hour**
- 2. Half an hour**
- 3. One hour**
- 4. More than one hour**

As already mentioned, the metered values can only be used for information purposes as a result of restrictions arising from the Verification Act in some member states. Shorter intervals than the monthly reading are therefore not suitable for billing purposes.

15-minute intervals would be feasible for electricity for showing the consumption for information purposes. The same applies to the feeding in of energy. In both cases the requirements with regard to data protection must be satisfied however, so that unauthorised third parties do not have any access to this information (for example this is a problem with the display on the meter).

4. b) Question to stakeholders:

When Time-of-use (ToU) registers are applied for customers and those that both generate and consume electricity, what would be an appropriate number of registers? (Comment: In this case, registers are equivalent to prices)

Two registers as a minimum are sufficient in a measuring device in a regulated environment with defined minimum requirements (e.g. status quo in Germany).

Provided that the conditions complying with the Verification Act have been adapted and the data protection interests taken into consideration, the number of registers and the different price zones should not be stipulated. In those countries where there is a metering market, it can be left to the competition.

Recommendation 5: Power capacity reduction/increase

The functionality of a remote controlled capacity reduction / increase should not be a standard function, but an optional function, of a smart meter for household customers.

The technical conditions in a private household necessitate numerous investments (for example in a smart home) in order to utilise this function.

Also the implementation itself increases the (financial) expense for the market players tremendously, which is why such a recommendation should first be preceded by the cost-benefit analysis already mentioned repeatedly in section 1 of the consultation paper. Irrespective of this, the active control of consumers by a market player would not be easily possible in all member states (e.g. Germany)

In addition extensive investments in the infrastructure would be necessary - above all in the case of the distribution system operators. The regulatory framework does not always permit such innovative investments. In many countries the reduction of costs in connection with incentive regulation is the primary objective. Innovative investments would not be able to be recouped by the distribution system operators in connection with the grid charges under the current conditions. Incentives for promoting investments in modern measurement systems are practically non-existent. There is a need here for an adaptation of the regulatory framework conditions.

Recommendation 6: Activation and de-activation of supply

In our view consumers already have the opportunity when they are away to reduce or completely cut consumption by using various aids (e.g. distribution box with master switch). This functionality is to be seen less in connection with smart metering and more in the context of the smart home or energy advice and should therefore be deleted as a general recommendation. It can however be withheld as an optional function.

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

In our view the standard meter should not be defined for both directions of energy flow. Consumers, who at the same time take on the function of the generator, are to be found much more rarely compared to the households with solely electricity consumption. The latter therefore need a simpler and therefore more reasonably priced meter.

In addition several technical solutions already exist for handling simultaneous consumption and feed-in.

Nor is it feasible and possible in every case to use only one meter (e.g. in the case of apartment buildings with own consumption and external procurement per sub-meter)

The recommendation only to use one meter for purchase and feed-in should therefore be deleted. It can however be withheld as an optional function.

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

As already mentioned consumers should have access at any time to the information concerning their own energy consumption. In many cases (e.g. in apartment buildings) this is not guaranteed however, since the measuring devices are built in centrally and sealed against easy access. The use of alternative approaches would be a solution (for example SMS, remote display, internet).

However these details may only be used as advance information without any binding force for billing purposes, since the conditions complying with the Verification Act do not allow different approaches.

Moreover the data protection requirements must be satisfied (e.g. in the case of the representation on the display of the meter).

The costs for such an offer in connection with the standard solution must also be recognised.

2.2.Draft recommendations on optional customer services

Recommendation 9: Alert in case of non-notified interruption

In our view a warning / information system for power failures and interruptions should not be part of the standard smart metering system. Instead such a service should be able to be offered as a special function under competitive conditions.

Such a function does not offer any added value for the distribution system operator with regard to the cost-benefit ratio. Technical breakdowns or interruptions are already logged at present (at least in Germany) – also at low voltage - and damage for the customer is avoided. Comparable protective mechanisms are already available for the most part at the level of the transformers.

Power interruptions in general are also part of the "Quality of service" obligations DSOs have to their consumers and these are monitored by the NRA's. This recommendation should therefore be deleted.

Recommendation 10: Alert in case of high energy consumption

This functionality should also be offered as an additional function within the scope of the competition. Not every consumer is interested in such a function.

Prompt information on the current consumption can also be guaranteed with the help of other functions (short read-out intervals with subsequent visualisation). In any case it implies a near real-time monitoring with subsequently high communication costs.

In the light of this, further framework conditions must first be clarified for the implementation of such a function. By way of example reference should be made to the Verification Act and data protection - as already mentioned repeatedly.

Recommendation 11: Interface with the home

Various aids can be used to comply with the requirements arising from the 3rd Package as regards information of the customer concerning the actual consumption. Taking into account the said framework conditions an in-house display, the display on the meter or visualisation by means of an internet portal could be used to present information.

An interface with the smart home would however be an additional function, which should also be left to the competition. This would also go beyond mere information and should not be part of the basic meter.

Each of the solutions - if this is to be implemented by the grid operator - should also be recognised however in terms of costs in connection with the regulatory activities.

Recommendation 12: Information on voltage quality

The monitoring of the voltage quality – where it is actively controlled by the distribution system operators hitherto - is already part of the function of system operators without the introduction of smart meters. Corresponding steps are already taken by the distribution system operators today in order to guarantee the stability and security of the system according to the European standard EN50160.

This topic should not therefore be discussed as a recommendation in connection with smart metering and is therefore to be deleted.

Recommendation 13: Information on continuity of supply

See comments on 12.

Question to stakeholders:**What further services should be envisaged in order to allow consumers and those that both generate and consume electricity to be aware and active actors in smart grids?**

In our view further offers and possibilities for services based on smart metering would develop in a market environment with the clarification of the unclear and currently inadequately formulated legal and regulatory framework conditions.

Further stipulations imposed by this consultation would therefore not be sensible.

3. Costs and benefits - electricity**Recommendation 14: When making a cost-benefit analysis, an extensive value chain should be used**

We greatly welcome the fact that the whole value chain is to be examined in a cost-benefit analysis. The consideration of special costs - for example to guarantee data protection - is also to be welcomed.

Besides the detailed description of the benefits for some market players, possible risks or cost drivers are missing in the list however. In addition to the described benefits, possible implementation strategies should be shown and financially assessed with a cost-benefit analysis. Subsequently the meaningfulness of the implementation of a benefit can already be assessed with the corresponding cost.

Furthermore the acceptance of the customers should also play a part in the assessment of the measures. Even if the cost-benefit analysis produces a positive result concerning a certain benefit, enquiries also have to be made regarding the realisation and the effective use of its theoretical potential.

Previous experience shows that the provision of the most comprehensive information possible to the customer concerning the cost - benefit ratio also affects the spread of smart metering significantly.

The recommendation on the cost-benefit analysis should therefore be supplemented by the most important cost drivers and an undertaking to provide information for consumers (e.g. by means of an initiative of the legislator).

4. Roll-out - electricity**Recommendation 15 : “All customers should benefit from smart metering”****Recommendation 16 : “No discrimination when rolling out smart meters”**

If the recommendations of this GGP are to be imposed on the industry (see point 1), recommendations 15 and 16 do not respect the 3rd Package that has foreseen a previous assessment – see the costs and benefits analysis in point 3 – with the possibility of course of assessing negatively, and when assessing positively a minimum threshold of 80% of consumers by 2020.

The absolute statement in recommendation 15 is not in line with current legislation.

The national legal framework on metering's place in the market model – which determines if it is a regulated activity or a metering “market” environment – determines inevitably the choice for a possible national roll-out or a more commercial focus on meter customer groups. Recommendations 15 and 16 might not be realised in a metering market environment.

As mentioned in recommendation 14, the benefits for the consumers should already be included in the cost-benefit analysis and comprehensive information should be provided on the opportunities and risks of smart metering.

Contrary to the recommendation of ERGEG in recommendation 15 it is not possible that all consumers benefit equally from the potential benefits of smart metering.

Instead the prior formation of customer clusters with a specific valuation would be useful, since smart metering is probably more economical for consumers with high consumption than for consumers with low consumption.

It might possibly be useful in this case to employ appropriate smart meter expansion stages (e.g. basic meters and basic meters with expansion). An interoperable and multi-sector basic solution could then be rolled out by the distribution system operator, which is supplemented by further functionalities subsequently - according to customer requirements. It would have to be guaranteed in connection with the regulatory activities that the resultant costs can be recouped by the system operator.

In this way a non-discriminatory, multi-sector transition to smart metering at minimum cost could be accomplished, which possibly contributes to the optimisation of the activities of the distribution system operators. As a result all grid users - also those with a basic meter - could benefit from a roll-out.

5. Customer services – gas

As a general remark, we attract the attention to the fact that gas – in contrast to electricity – has to compete with substitutes (oil, wood and coal). Consequently, balancing costs and benefits of the following recommendations is of great importance.

5.1.Draft recommendations on minimum customer services

Recommendation 17: Information on actual consumption, on a monthly basis

See response to recommendation 1.

In addition it is questionable for the medium gas, whether the extent to which the consumption is capable of being influenced by the consumer is comparable with the medium electricity. As a result of the physical properties of gas (for example inertia) and the use (cooking/heating), the consumption is more difficult to control and above to see than in the case of electricity.

Furthermore there are technical restrictions for the realisation of smart metering products (for example lack of electricity connection), which makes the use of some common technologies either impossible or only possible at higher costs.

It therefore seems sensible to record and display consumption values as information for the consumer at most hourly.

Recommendation 18: Accurate metering data to relevant market players when switching supplier or moving

See response to recommendation 2.

Recommendation 19: Bills based on actual consumption

See response to recommendation 3.

In addition the monthly consumption figures especially for gas vary tremendously. Whereas in the winter months particularly high consumption figures result, these are vastly reduced in the summer. With a monthly bill based on actual consumption correspondingly high amounts would have to be paid in winter and low amounts in summer thus putting unnecessary strains on the consumers ability to pay.

In our view a monthly bill would therefore scarcely meet with acceptance from consumers.

Recommendation 20: Offers reflecting actual consumption patterns

See response to recommendation 4.

20. a) Question to stakeholders:

When interval metering is applied, which interval should be used for customers and those that both generate and consume electricity? Please specify timeframes and explain.

1. Less than half an hour

2. Half an hour

3. One hour

4. More than one hour

See response to recommendation 4a

In addition hourly values should be displayed at most in accordance with the reasoning under recommendation 18.

20. b) Question to stakeholders:

When Time-of-use (ToU) registers are applied for customers and those that both generate and consume electricity, what would be an appropriate number of registers? (Comment: In this case, registers are equivalent to prices)

See response to recommendation 4b

Recommendation 21: Access on customer demand to information on consumption data

See response to recommendation 8.

5.2.Draft recommendations on optional customer services

Recommendation 22: Hourly flow capacity reduction/increase

See response to recommendation 5.

In addition the framework conditions and the extent to which the medium gas is capable of being influenced make it more difficult to utilise or develop price benefits for the end customer.

Corresponding models (e.g. interruptible contracts) are already in use in the area of large-scale customers in some member states. These are less suitable however for household customers. Furthermore gas is used for cooking or for heating in the case of most household customers. Varying or dynamic prices would have little or no effect on the consumption itself.

Recommendation 23: Activation and de-activation of supply

See response to recommendation 6.

In addition it should be clear that most gas appliances do not have a safety device that automatically prevents the flow of gas in case of activation, creating a safety issue.

Recommendation 24: Alert in case of high energy consumption

See response to recommendation 10.

Recommendation 25: Interface with the home

See response to recommendation 11.

6. Costs benefit analysis - gas

Recommendation 26: When making a cost-benefit analysis, an extensive value chain should be used

See response to recommendation 14.

7. Roll-out of smart meters - gas

Recommendation 27 : “All customers should benefit from smart metering”

Recommendation 28 : “No discrimination when rolling out smart meters”

See response to recommendation 15 and 16.

8. Data security and integrity – electricity and gas

Recommendation 29: Customer control of metering data

So far there are no clear stipulations on relevant implementation issues relating to data protection. However it seems reasonable that the use and collection of data – by commercial market parties - must be agreed with the respective consumer. We therefore welcome the fact that ERGEG is pushing ahead with the clarification of this situation.

Specific attention to the difference between information used by DSO/metering-operator for consumer-related processes (switching, move-in/out, etc) and information necessary for grid-purposes (balancing, loadshedding, capacity calculations, etc.) would underpin this.
