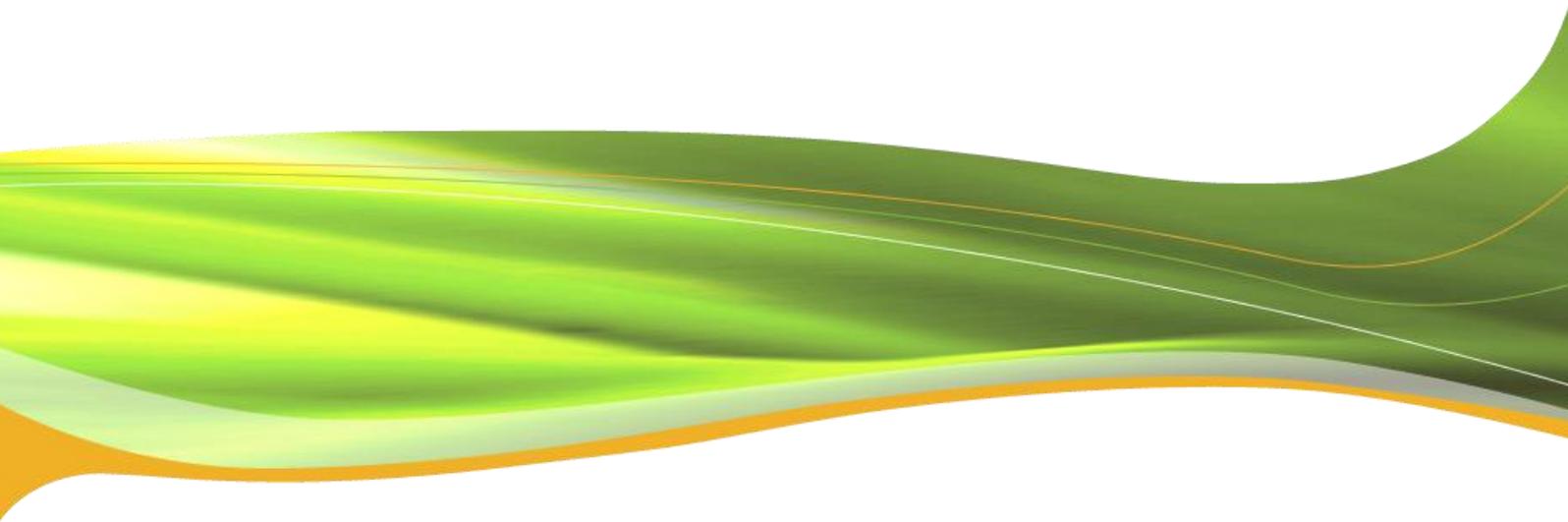


European Distribution System Operators for Smart Grids

Position paper on ENERGY EFFICIENCY



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This is a summary of the EDSO for Smart Grids views, from the perspective of the distribution system operator, based on the proposals presented in the proposed Directive on Energy Efficiency and repealing Directives 2004-8-EC and 2006-32-EC COM (2011) 370.

General view on Energy Efficiency – Smart Grids have a key role

EDSO for Smart Grids (EDSO) strongly supports the EU energy policy goals, where the development of Smart Grids will give a very strong contribution to 2020 and beyond – decreasing greenhouse gas emissions and increasing Energy Efficiency and the share of renewable energy. The Distribution System Operators will here play a key role ensuring the possibility to accommodate new distributed renewable energy sources, active customers with smart metering systems, the charging infrastructure for electric vehicles and the possibility to store electricity locally, at the same time as network stability is guaranteed.

EDSO believes that Energy Efficiency offers very interesting opportunities and is one of the key ingredients for a sustainable cost efficient energy future. Earlier, focus has been on development of individual technologies, whilst now significant opportunities lie in the development of system enabling technologies, catalysing synergies by facilitating information flows and remote controlling. We strongly believe that the development of **Smart Grids will play a key role** in this important development.

There will be a strong transition from other forms of energy to electricity. EDSO believes that there is great Energy Efficiency potential in the transport sector. By exchanging oil for electricity as the main fuel in road transport the use of energy will be much more efficient at the same time as the emission of greenhouse gases and the EU energy import dependence will be decreased substantially. Here, **the Smart Grids development in the distribution grids and charging infrastructures for Electric Vehicles will play a key role.**

The introduction of **Smart Grids and Smart Meters will empower electricity customers** and open up for customers to take a more active part in the electricity market, managing their own demand. It is of fundamental importance to fully embrace and internalise the dynamics of energy market liberalisation, relying on market based price signals.

Here **the DSO will play a market facilitator role** and really favour innovative development and offers from suppliers open to competition. In this role the DSOs can offer energy efficiency services such as:

- Owning and operating advanced metering infrastructure
- Increasing customers' awareness of their consumption profile, enabling display and use of data – offering an open (local and at system level) interface for the metering data to the market, Energy Service Companies, retailers etc. (i.e. consumption, home automation, demand modulation request)

- Enabling Active Demand development by offering to the market an infrastructure managing value added service on e.g. peak shaving and load control.
- Owning and operating storage facilities aimed at improving grid operation
- EV recharging infrastructure development and management based on smart charging to limit the negative effect on the network of EV, limit additional infrastructure investment and offer a multivendor platform for Energy traders and Value added services

EDSO welcomes a prolonging of the Energy Efficiency Directive/Energy Service directive also for the period of 2016-2020, but the association is concerned regarding especially the convergence between some of the proposed measures (demand and control) and already implemented directives, especially regarding the electricity markets deregulation and integration, stated in the third energy package (market based solutions). There is a risk that the measures proposed on Energy Efficiency will be contra productive towards the market based measures already implemented, resulting in lost benefits and synergies.

Below the EDSO views are summarised in direct connection to the different propositions.

1. "ENERGY DISTRIBUTORS or retail energy sale companies shall achieve annual energy saving of 1.5 per cent of their energy sales"

EDSO would like to point out the importance of not targeting energy saving obligations on both DSOs and retail companies of the same energy sector.

Before such targets are to be posted on the DSOs there is a great need to clarify what is to be achieved, how it is supposed to be done, the tools to do it, how it is to be measured and how the regulatory framework is supposed to be changed to make this possible according to the situation in each member state.

In order to achieve an improved over all energy efficiency performance, EDSO proposes to introduce more flexible mechanisms in accordance with the situation in each member state regarding the current possibilities and tools available for a DSO, since it in the EDSO view otherwise is not possible to post an energy savings target on distribution system operators.

Here EDSO would like to see that "early energy efficiency savings" obtained by obligated parties since 2008 is recognised, that savings achieved by a more efficient use of the grid (e.g., up to 30% of the total energy savings obtained by efficiency interventions on the DSO grid) can be claimed and that the DSO savings targets are taken into account in the remuneration schemes.

When analysing this, it is of interest to address the important neutral role for the DSO; being independent of suppliers, having levers to reach all households and solid territorial presence, physical services and the on-going deployment of smart-meters (which will result in a contact with each home).

**2. Minimum requirements for METERING AND BILLING OF ENERGY CONSUMPTION:
Billing should be based on actual consumption (monthly for electricity) by January 2015**

EDSO believes that billing the customer based on actual consumption is a step in the right direction and will help the customers to better understand what they are buying, the price on electricity and the network tariffs. EDSO supports this development. However, there is a problem with timing. Billing based on actual consumption (monthly) is dependent on Smart Meters and the introduction of such rules *should/must* therefore in our view be aligned with the roll-out of Smart Meters, defined within the third energy package to take place before year 2020-2022.

With the Smart Meters in place customers can be billed based on actual consumption, regardless of the duration (Monthly, quarterly...). EDSO would like to highlight that this duration should not be set by regulation but be a question for the customer in their relation with the DSO.

Since billing on actual consumption is dependent on the roll-out of Smart Meters, when considering the implementation of such rules also the cost-benefit analyses, specified in the third energy package should be taken into account.

Metering data on real time production or consumption must be made available to a third party if the final customer requests it

Basic information on metering and billing should be provided to customers free of charge – Information to be made available

- *Current actual prices and actual consumption of energy*
- *Comparisons with the consumption for the same period of the previous year*
- *Comparisons with an average normalised or benchmarked final customer in the same user category*

EDSO supports openness and transparency. The DSO will be the manager of the data, whilst it will be the property of the customer. Regarding what data and the amount of data to make available, EDSO would like to see a specified basis service containing certain well defined data to be openly available for free for the customer. There should also be an optional service including further data and/or data delivered in a certain way. To not unnecessary increase tariffs and to find an efficient way to handle this service it should come at a cost for the customer/third party (and of course after acknowledgement from the customer).

EDSO would also like to highlight the importance of clear rules and definitions regarding data an information security.

3. For high-efficiency cogeneration TRANSMISSION AND DISTRIBUTION system operators shall guarantee electricity transmission and distribution, provide priority or guaranteed access to the grid and provide priority electricity dispatch.

EDSO is of the general view that there should be no barriers for any sort of electricity generation. Political energy goals should be interpreted into price signals as in the EU ETS system or subsidy schemes for renewables. To add priority grid access or priority dispatch is not in line with the free deregulated electricity market and will lead to distortion, uncertainties and higher costs for the customers.

Member States shall take the appropriate steps to ensure that high-efficiency cogeneration operators can offer balancing services and other operational services at the level of TSOs or DSOs. The TSOs and DSOs shall ensure that such services are part of a services bidding process which is transparent and open to scrutiny.

EDSO believes in the development to cost-efficiently add ancillary services for local balancing. The EU 2020-targets, especially regarding renewables, and the third energy package are driving the development of the distribution system operators in the direction of Smart Grids. To be able to handle these vast amounts of new distributed renewable energy sources, the empowering of customers with Smart Meters and communicating and the integration of Electric Vehicles there is a great need to develop local balancing for the DSO.

In our view development of high-efficient CHP is positive for the EU. At the same time we don't believe that they will be a main source for balancing services. On the contrary CHP is very dependent on the need for heat in the distributed heat systems and needs to be optimised from this point of view to be run efficiently. This means that CHP generally will not be able to provide balancing power. But nevertheless, EDSO is supportive to find solutions to as efficiently as possible utilise any generation facilities for cost-efficient balancing.

Where appropriate, Member States may require TSOs and DSOs to encourage high-efficiency cogeneration to be sited close to areas of demand by reducing the connection and use-of system charges appropriately.

EDSO supports the idea of finding efficient placement for new electricity generation and see no problems with encouraging investors regarding this. However, decision on where a new facility is to be built is based on many factors, where the connection and use of system charges is one ingredient. Here EDSO would also like to highlight the importance of complying with the grid rules of connection. In all European member States, a flat connection rate is generally applied to all producers. This principle should be preserved and complemented with other incentives, for example regional schemes encouraging back-to-back locations for offer and demand.

Member States may allow producers of electricity from high-efficiency cogeneration wishing to be connected to the grid to issue a call for tender for the connection work.

EDSO supports measures that would make the problematic procedures of permitting easier and faster. Here EDSO would like to highlight the importance of making also the permit procedures regarding the needed grid investments easier and faster and that this is taken into account in the generation investments. EDSO would here like to address the importance to comply with the grid rules of connection and the importance to develop these also from the DSO perspective, since there will be vast amounts of new distributed energy resources to be incorporated at DSO grid level.

4. Regarding tariffs

- *Members States shall ensure the removal of those incentives in transmission and distribution tariffs that unnecessarily increase the volume of distributed or transmitted energy*
- *Network regulation and tariffs shall allow network operators to offer system services and system tariffs for demand response measures, demand management and distributed generation on organised electricity markets*
- *Network tariffs shall be available that support dynamic pricing for demand response measures by final customers, including: time-of-use tariffs, critical peak pricing, real time pricing and peak time rebates.*

Here it is important to set the basis for this issue. In the EU we have unbundling between competition (generation/supply/retail of electricity) and the regulated part (network transport of electricity). These are two totally separate things and almost all customers pay many times more for the electricity (based on the price for electricity) than their total cost for the transport of electricity (based on the network tariff). The electricity price is set by the supplier/retailer regardless of cost and the network tariffs are set by the regulated network operator.

What is addressed here is solely the regulated part, the network tariff.

EDSO represents DSOs interested in efficiency and the possibility to develop their companies, preparing for future challenges. EDSO supports that regulation shall allow DSOs to offer system services enabling active demand response, demand management and distributed generation. EDSO has the view that the role of the DSO will develop into a neutral market facilitator.

EDSO is in favour of DSOs making available tariffs supporting efficiency. At the same time it is important to highlight that:

- Energy Efficiency needs to be further defined, it is not obvious what it means and it is not obvious how it relates to economic efficiency
- Tariff design is not an easy task. Generally it is about bringing forward a good balance between on the one hand cost and benefit for the customer and on the other hand complexity in order to give the right incentives for certain actions and simplicity/possibility to understand and act accordingly.



EDSO for Smart Grids is gathering leading Distribution System Operators, covering more than 70 percent of the EU points of electricity supply, and cooperating to bring Smart Grids from vision to reality.

www.edsoforsmartgrids.eu