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Winter package - Top 5 most important Distribution (DSO) issues

With ambitious targets for production and consumption of renewable energy, the electricity sector is undergoing massive change. More dispersed generation and new technology making more flexible consumption a possible tool for both balancing and grid optimisation puts Distribution System Operators (DSOs) at the core of the electricity system.

Until now, EU regulation of DSOs has mainly dealt with their tasks and their functional and legal attachment to TSOs and other activities in the electricity sector. In the light of the Energy Union framework, the European Commission is now proposing a new set of legislative measures in the so-called “*winter package*” with the aim to strengthen the regulatory framework as DSOs take up an increasingly central role in the electricity system.

The issues concerning DSOs in the winter package aims primarily at activating flexible consumption and distributed resources, and strengthening retail competition. Important tools are better cooperation between market parties and more focused incentives.

This document provides a short summary of the top 5 most important initiatives regarding DSOs and the views of the Danish Energy Association on these initiatives.

1. DSO-TSO cooperation¹

As the energy system evolves and becomes more complex due to the use of dispersed renewable energy sources and flexibility of demand, the need for coordination between market parties becomes even more important. Thus, the European Commission proposes to strengthen the legislative framework for cooperation between DSOs and TSOs to ensure that all necessary information and data, e.g. regarding daily operation and long term planning of the networks, are shared, and that the use of distributed resources are coordinated.

The aim is to ensure cost-efficiency and secure and reliable operation of the networks.

The Danish Energy Association agrees to the need for a stronger and more formalised coordination between the parties. As the energy system becomes more complex, legislation should ensure that decisions are taken from a broad perspective and that costs are not inef-

¹ Electricity Regulation – article 53.

ficiently transferred from one voltage level to another. This requires coordination but also flexibility in remuneration frameworks so that the ability to recover costs are able to follow related tasks.

2. Local energy communities²

The European Commission believes that local energy communities can be an efficient way of managing energy at community level – with or without a connection to distribution systems. Therefore, member states are requested to adopt a legal framework that ensures the possibility of local energy communities to own, establish, or lease community networks within the new market design.

The Danish Energy Association supports making it possible for local communities to build and operate their own network in cases where the local DSO cannot deliver a necessary service. However, relevant legislation should be designed very carefully to avoid unnecessary costs from a socio-economic perspective. This could either be in terms of unutilized existing capacity (e.g. duplication of networks) or foregone economics of scale, which would result in unfair costs to be borne by other consumers. Distribution assets often have a lifespan of 40-50 years. If part of the consumers disconnects themselves from the network there is a risk of stranded assets, and a larger burden paying off existing assets will have to be borne by remaining consumers. Furthermore, there is a risk that the fundamental pricing principle of socialisation of costs between the same types of consumers is compromised, if consumers in low cost areas (e.g. located near production centres) creates their own networks leaving remaining consumers to finance networks in higher cost areas (e.g. in rural areas).

As distribution networks are critical infrastructure, member states should remain the authority of handing out distribution system operation licences, including the discretion to determine appropriate geographical areas and number of licenses, as to ensure an appropriate and efficient company structure and security of supply. Furthermore, to ensure a level playing field, local energy communities should comply with standard unbundling requirements for DSOs and other DSO regulations.

As well as prosumers, local energy communities must cover the costs they inflict on other networks if connected. Efficient managing and transport of electricity can only be achieved if local energy communities are not subsidised – either directly or indirectly – by other electricity consumers. Finally, with regard to existing networks, it should be ensured that neither the directive nor resulting legislation violate (private) property rights.

3. EU DSO entity for electricity³

To promote the completion and functioning of the internal market in electricity and the cooperation between DSOs and TSOs, the European Commission proposes that DSOs shall cooperate through an EU DSO entity. DSOs will be able to apply for membership and should, with administrative support from ACER, submit a proposal for statutes and rules of procedures on consultation of ENTSO-E and other stakeholders.

² Electricity Directive – article 16.

³ Electricity Regulation – articles 49-52.

The tasks of the entity should be coordination of operation and planning of distribution and transmission networks, data management and development of network codes among other things. The entity shall cooperate with ENTSO-E.

The Danish Energy Association welcomes the establishment of a common EU DSO entity. The entity could become an excellent forum for discussion and expertise for EU decision makers. As electricity issues are complex and numerous, we find it important that the entity only engage itself with electricity issues – at least for the coming years.

To have legitimacy and attaining sustainable solutions across member states, the entity must be able to speak on behalf of all EU DSOs. Ensuring this is not an easy task, as differences between DSOs in terms of size, geographical location, ownership structure, regulatory framework, operational challenges etc. are significant – even between DSOs based in the same country. The Danish Energy Association believes that there is a sizeable risk that members of such an entity would not be representative for all EU DSOs, unless representatives from all 28 member states have a seat in the entity. Thus we find it important that the DSOs of each country are presented with the opportunity to elect a country representative responsible for coordinating inputs and nominating experts to working groups.

4. Active distribution system management⁴

In order to pull the flexibility of demand response and distributed generation into the grid optimization at DSO level, the European Commission proposes that member states shall provide for a regulatory framework that incentivises DSOs to procure flexibility services from end consumers or generators through aggregators. Aggregators are intermediaries that pool flexibility from small individual sources thereby making aggregate services available for DSOs and TSOs as a means of active system management. The aim is to improve overall efficiency of the systems by making a new operational management tool available for system operators.

The Commission proposes that member states shall put in place a regulatory scheme that allows for DSOs to recover their costs for procuring flexibility resources, including expenses for the necessary information and communication technologies.

The Danish Energy Association agrees that DSOs play a central role in facilitating the development of markets for flexibility services and supports the proposal for a remuneration scheme that incentivises DSOs to procure flexibility resources for optimisation of the distribution system. Traditionally DSOs mitigate capacity shortage by investing in new network capacity (CAPEX). However, the use of flexibility services (OPEX) in the optimisation of the grid may serve to postpone or offset expensive network investments and thereby increase overall cost-efficiency. Current regulatory schemes tend to favour investments in capacity rather than operational costs, including costs related to the purchase of flexibility services. This gives undesirable incentives and poses a risk of inefficient investments. Moreover, such remuneration schemes will also facilitate innovation and development of new systems services based on demand response that may improve overall efficiency of the electricity system.

5. New technical functionalities for smart meters⁵

⁴ Electricity Directive – mainly article 32

Where smart meter systems are positively assessed or systematically rolled out, the European Commission proposes that a number of requirements are fulfilled. Some of those requirements are minimum functionalities, e.g. that information shall be made available to final customers at near-real time, and that the meter systems are interoperable.

The Danish Energy Association finds it important that such new requirements do not induce unnecessary costs on DSOs and consumers. Some of the proposed requirements will be expensive to satisfy – especially in countries where new smart meter systems are already being rolled out. Because of this, we recommend that the requirements should only be applicable when existing smart meter systems are being replaced naturally.

⁵ Electricity Directive – articles 18-20, 22.