

DSO DECLARATION

POWER DISTRIBUTION: CONTRIBUTING TO THE EUROPEAN ENERGY TRANSITION



1.

WHAT ARE THE NEW CHALLENGES FOR ELECTRICITY DISTRIBUTION?

European distribution system operators (DSOs) are committed to the decarbonisation of our economy, driven by the EU climate and energy policies on renewable energy, low carbon emissions and energy efficiency. The development of distribution networks is pivotal to meeting these objectives and to the integration of electricity markets.

Traditionally, distribution networks were designed to transport electricity in one direction: from the generation connected to the transmission system to customers at the end point of the network. This type of system did not require extensive management and monitoring tools.

But with solar panels on residential rooftops and wind turbines integrated into industrial sites, customers are increasingly generating electricity themselves. By becoming “prosumers” they are moving from the end point to the centre of the new value chain.

Indeed, the EU’s policies have encouraged the development of decentralised electricity generation, electric vehicles, energy storage and flexible demand. **This change has given DSOs the opportunity to rethink traditional system operations and reflect on how to best develop and operate Europe’s distribution networks with a view to the future.** In addition, unexpected and extreme weather conditions such as floods and extreme blizzards present a challenge to system resilience and make the case for more intelligent processes in order to minimise negative consequences resulting from outages.

2.

WHAT IS THE ROLE OF DSOs IN THE TRANSFORMATION OF THE ENERGY SYSTEM?

The changing context does not mean that DSOs’ role will fundamentally change. Existing provisions in EU legislation aimed at achieving network operators’ independence – and the monitoring of their implementation by independent national regulators – provide a sound basis for the future.

However, **DSOs will need a bigger toolbox** to cope with the challenges of a more decentralised energy system, in which power as well as information will need to flow in both directions.

In particular, DSOs will need to actively manage and operate a smarter grid, rather than just “burying copper in the ground.” This new approach will include making use of the grid’s and consumers’ flexibility potential to solve grid constraints, optimise network performance and investments, and make the most of existing network assets. **DSOs need to be explicitly granted access to the flexibility in their networks in order to carry out such truly active system management.** A smarter grid will, in the majority of Member States, also mean rolling out smart metering¹ and implementing ICT innovations to enable us to quickly identify, isolate and sometimes even fix problems on the network remotely, supporting surrounding areas to continue receiving a stable supply of electricity while the issue is being resolved.

Finally, the best can be made of Europe’s future energy system if consumers become more active. But for this to happen, we will first have to help them understand the benefits of a smarter system. **DSOs can contribute to improving consumer awareness via targeted communication to customers on network-related issues.**

¹ In Member States with a positive cost benefit analysis according to Directive 2009/72/EC

This communication will be crucial for consumers in the context of smart meter installation. **The DSO has to be a clearly identified contact point in order to guarantee the quality, metering accuracy and performance of the electricity delivered².** When undertaking these new tasks, DSOs will continue to act as neutral market facilitators, allowing for high-quality retail market processes and providing market actors with neutral access to metering data².

As neutral actors under the scrutiny of independent national regulators, **DSOs are in most EU countries best placed for managing detailed data and ensuring data privacy.** DSOs will be able to foster the development of various and competitive offers by suppliers, energy services companies, aggregators or other innovative parties if retail customers are put in a position to clearly recognise them as a neutral trusted third party, managing the data in a secure and transparent way.

3.

WHAT IS NEEDED FOR DSOs TO PLAY A PIVOTAL ROLE IN THE ENERGY TRANSITION?

Europe will not be able to reach its energy and climate objectives without significant long-term investments in distribution networks. According to European Commission figures from 2011³, distribution networks will require €400 billion of investment by 2020, representing two thirds of total network investment.

As regulated companies, the DSO remuneration is determined by regulation at national level. **Network regulation should be revised to incentivise DSOs to make the necessary efficient long-term investments that ensure a secure, sustainable and reliable electricity supply to Europe's citizens.**

National regulation should be consistent with EU policy and provide for:

- *long-term predictability;*
- *an efficient remuneration scheme that delivers an adequate return on investment, including timely cost recovery for the roll-out of smart metering;*
- *room for innovation, making sure that short-term cost-efficiency objectives do not hamper innovation in the long run.*

Implementing smart solutions will be instrumental to keeping the network costs proportionate in the long run, compared to a business-as-usual scenario in which the necessary investments would not take place. Electricity tariffs will need to reflect these network investment needs.

In addition to supportive policies at national level, more **research and innovation funding** possibilities are needed at EU level, namely for demonstration projects and the promotion of clean electric transport.

Finally, we need to ensure that distribution users pay fair and cost-reflective network tariffs. Situations in which one group of network users covers the costs generated by other user groups must be avoided. **To achieve this – and to enable DSOs to better cope with the changing operational challenges – more capacity-based network tariffs should be introduced.**

² In Member States where DSOs are in charge of smart metering and after the customer's consent.

³ Figures announced by DG ENER based on their own calculations using data from PRIMES, ENTSOs, KEMA etc.

ABOUT THE EUROPEAN POWER DISTRIBUTION BUSINESS

Distribution networks are the backbone of the European power system, representing 97% of all power lines in Europe. They deliver electricity to its ultimate point of consumption: households and businesses. Europe's 2,400 electricity distribution companies employ 240,000 people, providing a very high level of reliability and quality of supply to around 260 million customers. The electricity distribution business across Europe is very diverse. It varies in the number and size of operational areas, the number and type of connected customers, network characteristics, renewables penetration as well as ownership structure.

This joint DSO declaration is published by EURELECTRIC on behalf of the four associations representing electricity DSOs at EU level: **CEDEC, EDSO for Smart Grids, EURELECTRIC, GEODE.**

EURELECTRIC IN BRIEF

EURELECTRIC represents the common interests of the electricity industry at pan-European level. Our current members represent the electricity industry in over 30 European countries.



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