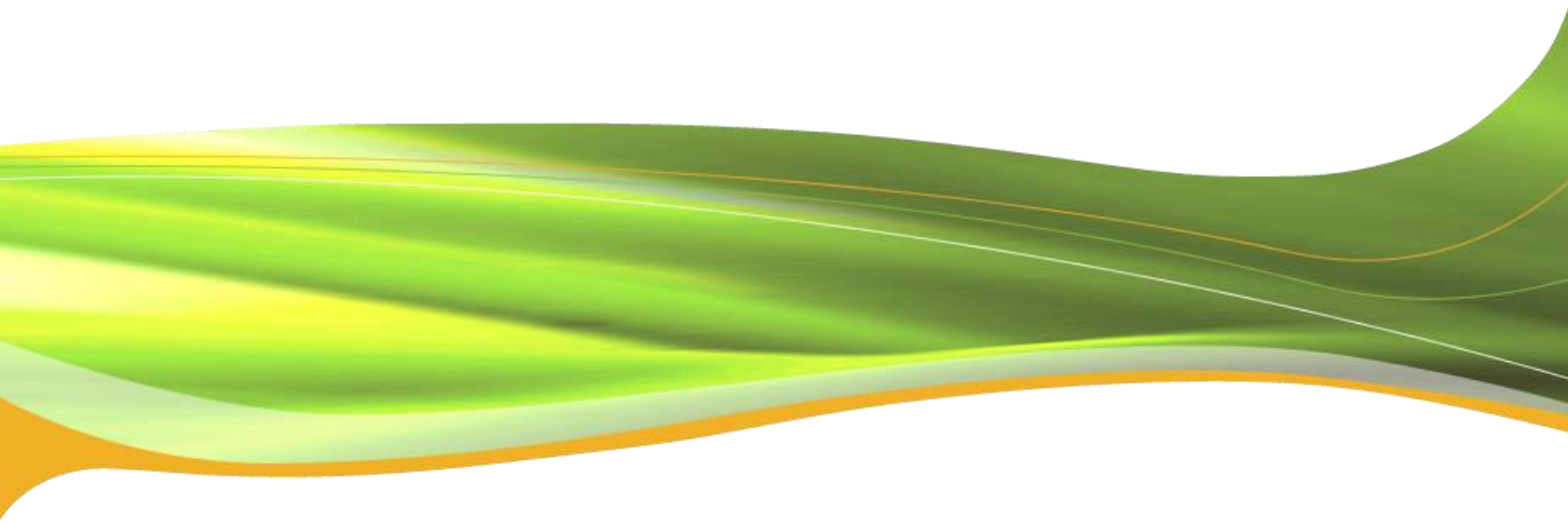


## **European Distribution System Operators for Smart Grids**

Response to the green paper on the 2030 framework for climate and  
energy policies



# Response to the green paper on the 2030 framework for climate and energy policies

## **General comment**

EDSO for Smart Grids (EDSO) represents electricity distribution system operators (DSOs). DSOs are regulated monopolies with the core mission “network stability and security of electricity supply”, technology-neutral and adapting to the evolution of energy production and consumption.

EDSO members are investing in Smart Grid technologies and research, development, demonstration and innovation and are already at the forefront of renewables integration and energy efficiency improvements. This public consultation is an opportunity for EDSO to remind the European Commission and other stakeholders that distribution system operators are committed to the very important development of Smart Grids but that there is a need to change the national regulatory frameworks to do so.

Below the EDSO views are summarised in direct connection to the relevant questions stated in the green paper.

## ***Which lessons from the 2020 framework and the present state of the EU energy system are most important when designing policies for 2030?***

It is important to see the changes in the energy system from a holistic perspective, taking the interdependencies of generation, transmission, distribution and supply into account.

When defining targets, such as the 20 percent increase of renewable energy, it is crucial to also take into account the direct effects of the target, in this case the electricity grid and system integration of the renewables. Large amounts of distributed renewable energy sources have to be integrated, as well as the infrastructure for smart charging of electric vehicles, empowerment of customers with smart metering and local electric storage possibilities. For this Smart Grid technologies will have to be deployed in order to incorporate these in a cost-efficient way. In order to optimise the energy system and reach the EU objectives, it is important to take the local situation, which differ greatly among member states, into consideration. Today, more than 80 percent of all renewable energy installations are connected to the distribution level of the electricity grid. The considerable spill-over effects between primarily the targets on renewables and greenhouse gas emissions, are increasing the uncertainties for investing in Smart Grid solutions.

Regarding energy efficiency, the DSOs are in a very good position to offer energy efficiency services. This possibility is highlighted in the Energy Efficiency Directive that has recently entered into force, but not enough, taken into account the role of the DSO in this perspective.

In programmes like the European Commission work on the trans-European energy networks (TEN-E) it is important that smart grids is really taken into account and that also the distribution level where the major part of the smart grid development is needed is in focus.

### 4.3. Instruments

#### ***Are changes necessary to other policy instruments and how they interact with one another, including between the EU and national levels?***

Regarding Smart Grid technologies, there is a great need for RD&D and innovation and the main focus should now lie in the system integration on current electricity grids of these developed technologies. In order to accelerate and deploy Smart Grid technologies the integration of these solutions in existing grids and testing these in large scale demonstrators in real life surroundings is of great importance. There is also a great need for the regulators to incentivise the DSOs investments in Smart Grids technology as well as in RD&D and innovation. Policy makers and regulators will have to clearly define the roles and responsibilities of DSOs and the other actors in the value chain. This will reduce uncertainties thus creating a better investment climate.

To ensure security of supply is maintained in the new energy system, the DSO should be given the mandate for real system operation at local/distribution level. If this change in the role of the DSO is not applied, the new possibilities and solutions available to DSOs in relation to integration of renewables, improved energy efficiency, etc. will not be fully exploited. This new role and responsibility will have to be acknowledged at EU level (in the network codes, etc.), but defined and implemented at member state level, in line with local conditions.

#### ***How should specific measures at the EU and national level best be defined to optimise cost-efficiency of meeting climate and energy objectives?***

The development of Smart Grids will be necessary to reach the European climate and energy objectives in a cost-effective way. For this purpose, incentives for DSOs to invest in smart and innovative technologies should be given in the national regulatory frameworks.

#### ***How can EU research and innovation policies best support the achievement of the 2030 framework?***

There is a great need to have the electricity grids in focus of RD&D. The grids, especially the distribution networks and the DSOs, will be the true enablers of the integration of smart technology into the electricity system – renewable and distributed energy resources, smart charging infrastructure for electric vehicles, etc. – and the ensurer of a neutral facilitator of a level playing field retail market with smart metering and empowered active consumers.

There should be a focus on demonstration of Smart Grid technologies, especially large scale demonstrators in real life surroundings (including economic, social and environmental aspects) as the last important step necessary before full deployment. System integration of already existing technology in real life grids is as important as fundamental innovation.

Sharing knowledge is crucial and private-public co-funding is needed both on EU and member state level to test new solutions. Coordination of the RD&D efforts between different initiatives on EU level as well as between EU and member state level is crucial in order to share knowledge in a cost-efficient way.

Since the DSOs are the main investors in the smart grid development and due to the unbundling between the generation and supply on the one hand and regulated businesses on the other, there is a great need to involve the regulator very early in this process. There should also be a direct link to the national regulator by including RD&D in the regulatory framework.

The European Electricity Grid Initiative (the EEGI/one of the SET-plan industry initiatives) is an excellent tool to make sure that the real industry needs are taken into account in the important European grid focused RD&D. It is of great importance to continue and strengthen the EEGI work and the well-structured EEGI roadmaps and implementation plans.

Attention should also be paid to the development of standardisation and interoperability to accelerate the integration of Smart Grid technologies.

#### **4.4. Competitiveness and security of supply**

***How to increase regulatory certainty for business while building in flexibility to adapt to changing circumstances (e.g. progress in international climate negotiations and changes in energy markets)?***

Roles and responsibilities across the value chain of the energy system should be clearly defined.

To secure the new energy system and creating a level playing field for the market players, the DSO must be given a clear mandate for system operation at local level, and this should also be reflected in the network codes. In order to execute the role of local system operator, any action on the DSO's grid by a third-party (e.g. aggregator) should be visible and the DSO should have the possibility to intervene if this third-party action endangers the network stability or the security of supply. The DSO has a natural role as the neutral market facilitator, including the responsibility of managing and storing metering data. These roles and responsibilities will have to be acknowledged at EU level, but defined and implemented at member state level, in line with local conditions.



**EDSO**  
for smart grids



*EDSO for Smart Grids is an European association gathering leading Electricity Distribution System Operators, cooperating to bring Smart Grids from vision to reality.*

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