

EU4Energy: Regional Workshop on New Roles of DSOs under the Clean Energy Package

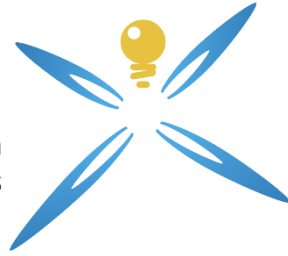
Nazim Khiari, CEER

25 July 2024

www.ceer.eu

CEER

Council of European
Energy Regulators



Fostering energy markets
empowering consumers

Session 1: Overview of new DSO roles under the Clean Energy Package (CEP)

Overview of the
CEP

New and
expanded roles of
DSOs

Examples and case
studies illustrating
these roles

Recent
developments and
future trends

What is the Clean Energy Package?

- CEP first published in 2019: one of the EU's commitment to reducing greenhouse gas emissions, increasing energy efficiency, and boosting the use of renewable energy to reach the overarching target of climate-neutrality by 2050
- 8 legislative acts as well as various initiatives and measures included in the CEP (the Renewable Energy Directive, Energy Efficiency Directive, and the Electricity Market Design...) aiming to transform Europe's energy system and facilitating the clean energy transition
- Essentially, CEP provides a framework for the transition towards cleaner and more sustainable energy (necessary to stimulate investments and put consumers at the centre of the energy transition)

The Clean Energy Package includes:

- Energy Performance in Buildings Directive (EU) 2018/844
- Renewable Energy Directive (EU) 2018/2001
- Energy Efficiency Directive (EU) 2018/2002
- Governance of the Energy Union Regulation (EU) 2018/1999
- Electricity Regulation (EU) 2019/943
- Electricity Directive (EU) 2019/944
- Risk Preparedness Regulation (EU) 2019/941
- ACER Regulation (EU) 2019/942



What are the key (new/expanded) roles for DSOs?



What are the key (new/expanded) roles for DSOs?

- Facilitating Renewable Integration:
 - Integrate distributed renewable energy sources into the grid
 - Upgrade grid infrastructure and employ advanced grid management techniques to handle variable generation and ensure grid stability
- Enhancing Grid Flexibility:
 - Enhance grid flexibility to accommodate new loads such as electric vehicles (EVs) and distributed generation (includes demand response and energy storage solutions)
 - Flexibility services can stabilize the grid and reduce the need for additional infrastructure

What are the key (new/expanded) roles for DSOs?

- Data Management and Digitalization:
 - Collect, process, and share data from smart meters and grid sensors
- Market Facilitation:
 - Act as neutral market facilitators, ensuring fair access to the grid
 - Create local energy markets and facilitate peer-to-peer trading
- Supporting Energy Communities:
 - Provide infrastructure and support for energy communities

Examples and case studies illustrating these roles

- Facilitating Renewable Integration
 - Spain - Successful implementation of advanced grid management systems that integrated a large amount of renewable energy, maintaining grid reliability and reducing curtailment
- Enhancing Grid Flexibility
 - France - Use of smart meters and analytics improves ability to manage peak demand and integrate decentralized energy resources
- Data Management and Digitalization
 - Italy - Innovative use of AI and blockchain technology in grid management and energy trading showcases how digitalization can improve efficiency and security

Examples and case studies illustrating these roles

- **Market Facilitation:**
 - Netherlands - A platform can allow DSOs to trade flexibility services in the market to prevent grid congestion. Initiative promotes an efficient and flexible energy system, benefiting both consumers and the broader energy market
- **Supporting Energy Communities:**
 - Germany - DSOs can work closely with energy communities to integrate local renewable energy projects. This collaboration enhances community engagement, promotes sustainability, and ensures a reliable energy supply

Recent developments & future trends relevant to DSOs

- Green Subsidies:
 - New subsidies and financial support mechanisms are available under the Green Deal Industrial Plan
 - Increased funding from the European Investment Bank (EIB) for clean investments & solutions
- Increased Digitalization:
 - Digital infrastructure for grid management will continue to grow
 - Several benefits of digitalization for operational efficiency and customer service
- Enhanced Consumer Participation:
 - Consumers/prosumers will continue to play a more active role in energy markets

Recap

- **Three Main Ideas to Remember:**
- The CEP aims to significantly reduce greenhouse gas emissions, increase the share of renewable energy, and improve energy efficiency by 2030, aligning with the EU's climate goals
- DSOs are critical in integrating renewable energy, enhancing grid flexibility, managing data and digitalization, facilitating local energy markets, and supporting energy communities by making them key players in the energy transition
- Only through a mix of legislative measures, financial support, innovation, and consumer-centric policies will we achieve our common energy targets

Thank you



www.ceer.eu

CEER
Council of European
Energy Regulators

