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# EU4ENERGY PHASE II

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

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## 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)



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## 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





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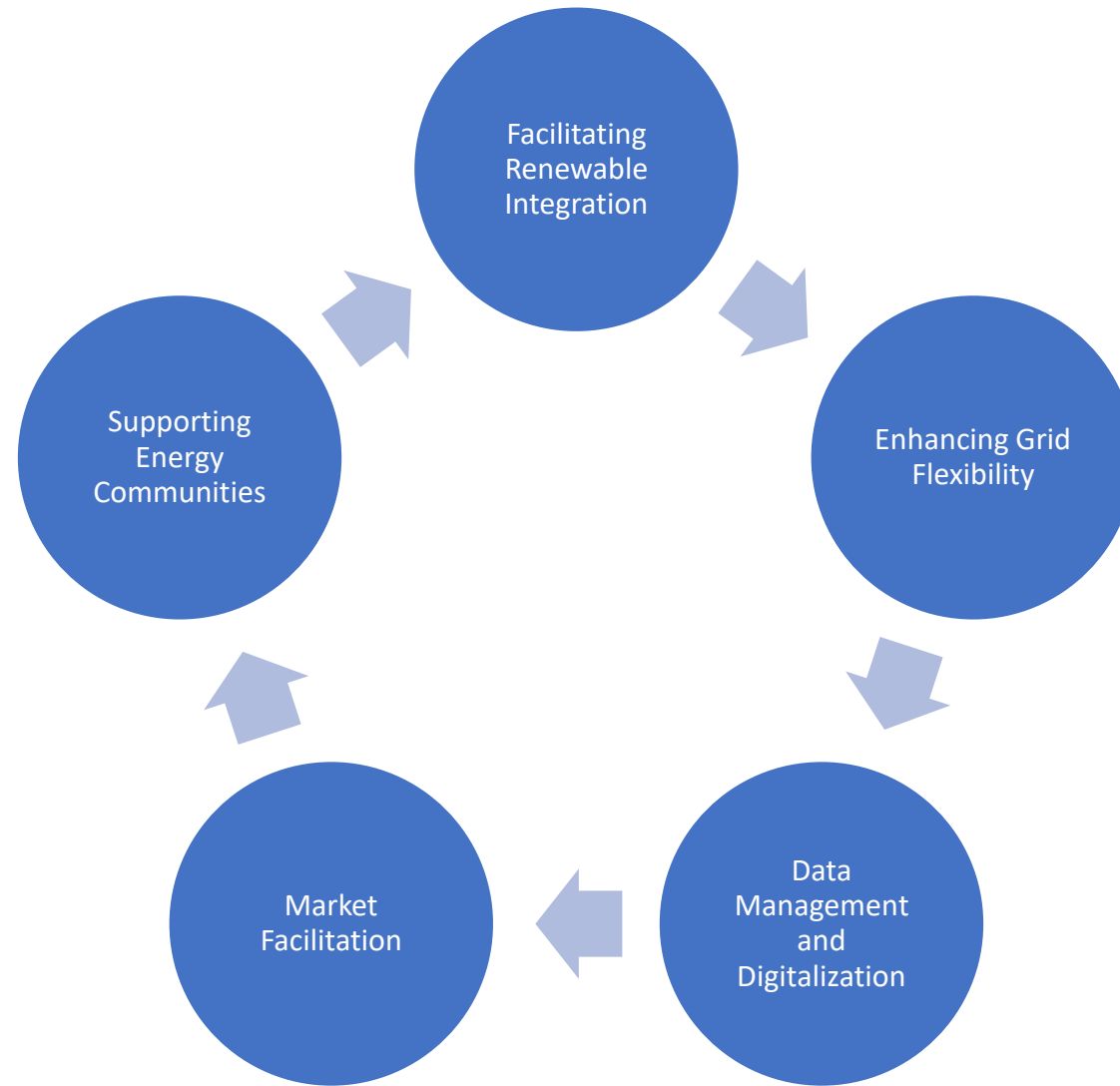
# Why did the EC introduce the CEP?

- Clean energy transition involves deep transformation of the energy system from production, transportation and consumption
- Decentralised, decarbonized, digitalized energy sector
- The CEP aims to make Europe's energy system more modern, better integrated and more flexible (to integrate new share of energy capacity and load)
- Major implication for DSOs as new challenges will take place at the distribution level



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





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# Updated framework for DSOs

- Two blocs in the updated framework for DSOs – related provisions under chapter 4 of Electricity Directive and elements in the Electricity Regulation
- EC gives new tasks for DSOs: **ability to use flexibility sources** (demand response, storage) via market-based solutions to optimize operation of grid and delay of new infrastructure
- Important: **Neutral role of DSO** – specific rules for DSO involvement in storage, EV infrastructure, data management and other activities – DSOs cannot be involved in activities that provide flexibility to the system (with some exceptions)
- Systematic and wider distribution **network development plan** – specific rules on the process, content, cooperation with TSOs and role of NRAs



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# DSO network development plan (art.32 Electricity Directive)

- Provide **transparency** on the medium- and long-term flexibility needs
- Set out the **planned investments** for next five to ten years
- Emphasize main distribution infrastructure which is required to connect new generation capacity loads (including EV)
- Include the use of demand response, EE, energy storage facilities or other resources that DSOs are to use as an alternative to system expansion
- **Exemption** from network development planning for DSOs serving less than 100k customers



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# DSO network development plan (art.32 Electricity Directive)

- **Process:**
  - At least every two years
  - Transparent – consultation of relevant system users and TSOs. Result of publication to be published with the network development plan
  - To be submitted to NRA
- **Role of the NRA – art.32 gives full power to NRA:**
  - to receive and assess the result of the consultation and the network plan + can request amendments to the plan



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# DSO/TSO cooperation in network operation and development

- TSOs to be consulted by DSO on the distribution network development plan
- **DSOs and TSOs to cooperate** in planning and operating their network (art.57 Reg) – includes exchange of all necessary information and data on the performance of generation assets and demand side response, the daily operation of their networks AND the long-term planning of network investments
- This helps ensure cost-efficient, secure and reliable development and operation of networks
- Helps achieve coordinated access to resources that support TSO/DSO needs



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# EU DSO Entity

- EU DSO Entity enacted in Electricity Regulation (art.52 – 55)
- Regulation clarifies the structure of the EU DSO Entity (membership, governance, board) and sets the objectives: promote the completion of the IEM and an optimal management and coordinated operation of distribution and transmission systems
- Tasks include promoting operation and planning of distribution networks in coordination with the operation and planning of transmission networks AND EU DSO Entity cooperation with ENTSO-E for the development of best practice on coordinated operation and planning of these networks



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# Conclusions

- DSOs will have greater responsibilities under new energy landscape – CEP provides framework for DSOs to support shifts in the energy sector
- Flexibility and network planning go hand in hand – providing cost-efficient solutions to managing future energy system
- NRA role in assessing network development plans and making sure that flexibility is taken into account is crucial

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