“Regional Energy Market Connectivity in the Western Balkans: Back to the Future”,
5 December 2019, Tivat (Montenegro)
The European electricity system undergoes significant changes driven by a strong climate action agenda and related development of renewable energies.

These changes take place at unprecedented speed and add further complexity to system operation and electricity markets, while also offering new opportunities.

The Clean Energy Package is an important milestone for this transition. Its timely implementation is the priority for TSOs.

ENTSO-E’s Vision aims to contribute to the shift of Europe’s energy sector from a fossil fuel dominated and supply-centric model to a clean, digitalised and electrified consumer-centric system with many distributed resources.
One System 2030 drivers

- **Distributed flexibilities** in future distribution networks with close TSO & DSO alignment
- **Power Electronics** towards hybrid AC / DC systems
- **Markets and Physics** seamlessly integrated within One System
- **Sector Coupling** where operators have pivotal role for “system of systems”, beyond power
- **Mastering future challenges** with resilience, forecast (RES), automation, Artificial Intelligence
One System 2030 key elements

- Seamlessly integrated
- Decentralized resources
- New technologies
- Aligned with all connected assets
- Enabling cross-sector coupling

A true System of Systems
Market Design 2030 options & recommendations

no one-size-fits-all: Options*

* Examples of market design options for short term markets and congestion management

Recommendations

- No radical market design change
- Focus on CEP implementation: no need to introduce new EU legislation
- Foster efficient Internal European Market
- Solutions depend on national specifics
- Different fit-for-purpose solutions needed to avoid constraining innovation, but ensure preserving the IEM benefits
Market Design 2030 common principles

Fit-for-purpose solutions, reducing the gap between market outcomes and physics, enabling whole Europe to meet the 2030 challenges, and preserving the benefits of the IEM:

- Include **stronger locational signals**
- Increase the **locational visibility of resources**
- Enhance **short-term markets** to allow market participants to **trade closer to real-time**
- Facilitate provision of **new (including non-frequency) ancillary services**, in line with the CEP
- Ensure **efficient use of the grid capabilities** and of flexible resources
- Ensure **close TSOs’ - DSOs’ coordination**

_Solutions for short-term market and congestion management should be part of a holistic market design addressing all 2030 challenges, such as investment price signals and system adequacy._
TSO - DSO cooperation: the new chapter

Always in place, nowadays to be significantly adapted in order to cope with new challenges:

- more and more resources necessary for proper operation of power systems, i.e. distributed generation, active load and storages, connected to distribution networks
- one way power flow on T&D interface being replaced by two way traffic
- volatility of power flows experienced so far on transmission level moves towards distribution grid
- congestion management becomes the issue also at distribution level
- under deregulated conditions relevant market design solutions shall cover also distribution level
- DSOs set up varies among Member States so will do future solutions for T&D interface, also
- some guidance at European level recommended to ensure interoperability, e.g. for data exchange
- CEP requires to set up EU DSO entity by 2021
A new Steering Group for a sustainable TSO-DSO interface

Set up in 2019 in order to:

- provide strategic overview of the interface from TSOs side
- ensure coordination of the relevant work done within Business Committees
- prioritise topics for cooperation with DSOs
- be a single point of contact for DSOs and stakeholders
Our Vision: One System & Market 2030

- Multilevel architecture
- Different geographical scales
- Functional layers
- Multilateral interfaces
- Interoperability
- System operators = key facilitators
- Governance involving stakeholders

Let’s build it together!
Thank you