Our Vision for Europe’s Power System

Ben Voorhorst,
Chief Operating Officer at TenneT,
President of ENTSO-E
“Our Vision for Europe’s Power System”

Ben Voorhorst, ENTSO-E President
“Enabling the energy transition”
The new faces of power networks coordination

Key in managing our new challenges & developing new opportunities
Coordination will help us address the ‘4D’

Decarbonisation

Digitisation

Decentralisation

Democratisation
And put the customer in the driving seat
Coordination but also innovation & transparency

**MARKET DESIGN**

- Markets need to be modernised
- Grid operation needs to be optimised
- Network codes will deliver their full potential by 2020
- Beyond, Clean Energy Package sets the vision

**DATA**

- Data/transparency
- To inform & incentivise customers, market participants
- Horizontally across borders
- Vertically from the customer to wholesale & vice-versa
TSOs already live in a world of Big Data!
Next critical development steps

- Demand response/ flexibility Data Hubs
- Reference Grid Architecture Model to support next Network Code deployments
- New Generation Flow Based real-time markets
Prepare for future sector coupling

• Power with Gas / Combined Heat & Power

• Mobility with Power & Gas & Emission Trading

• TSO-DSO coupling

• Microgrid coupling at Gridedge through #Blockchain
The proposed Regional Operational Centres (ROCs) - Blurring responsibilities is never a good idea

Responsibility splitted between two levels

More conflicts, less legitimacy
The low hanging fruits of coordination have been picked up
What about the hot potatoes?
COORDINATION BEYOND POWER NETWORKS

1. Decision-making triangle
2. Regional TSO cooperation
3. Regional Energy fora

- Member states
- Regulators
- System Operators
- Regional Security Coordinators
- Other parties

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POWER REGIONS FOR THE ENERGY UNION: REGIONAL ENERGY FORUMS AS THE WAY AHEAD

HOW TO INTEGRATE A SUBSTANTIAL AMOUNT OF RENEWABLES, MAINTAIN SECURITY OF SUPPLY AND FOSTER EFFICIENT MARKETS?
HOW TO ESTABLISH REGIONAL ENERGY FORUMS

ENTSO-E suggests the following criteria for defining regions for REFs:

- A bottom-up process
- Geographical closeness
- Interconnections and complementary energy mix
- Common concerns with respect to security of supply and market integrity
- Market conditions and maturity
- Manageable size of the region
- If possible, build on the already existing regional cooperation structures
- Overlap of regions in the border areas.
THANK YOU FOR YOUR ATTENTION

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