

Economic signals for DSOs and Consumers

# From distribution networks to smart distribution systems

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Public hearing on the future role of DSOs

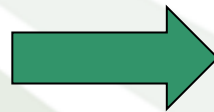
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# From distribution networks to smart distribution systems



I. We all expect major benefit to be gained from smart distribution systems.

1. Facilitating the integration of renewables
2. Increasing energy efficiency
3. Allow the customer to take control of his energy bill



**FLEXIBILITY MARKET**

## CAPEX-OPEX - Innovation



- A massive DER penetration open the potential for reducing total operating costs through an active management.
- To allow for active management DSOs need to invest in an ICT infrastructure that empowers them to employ DER for their daily grid operation.
- An active system management requires a sound regulation that efficiently incentivizes DSOs through changing OPEX and CAPEX structures so DSOs can deploy innovative solutions

# Input / Output Regulation



- We agree that output based regulation measured by suitable criteria could be an adequate regulatory incentive
- Output regulation should have an appropriate balance between rewards and penalties and the DSOs should be able to achieve the objective and output levels set
- Nevertheless output-based regulation is not adequate measure to incentivise R&D. It may need additional innovation funding schemes

# Design of network charges



- The present design of network charges does not provide a level-playing field among all players that use the grid
- The power based component has to be included in the tariff structure
- Increased penetration of DER will change the use of the grid and ill-designed distribution network charges will become even more problematic
- Business models exploiting arbitrage possibilities caused by lack of proper networks tariffs might increase due to increased complexity
- New tariff structures therefore have to reflect the true costs/benefits of different types of load and generation for the distribution system. Any hidden subsidies or socialized costs should be removed.

## DSO – a local market facilitator



- The market can deliver multiple services to cover flexible demand. A market place should be developed to ensure transparency, facilitate competition and make access of new participants easier. Future contractual arrangements between DSOs and customers have to adapt to the new development
- First the market place has to be created. The missing link for the integration of third party aggregators has to be developed. DSR has to bring value to the customers otherwise it will not develop
- Essential for such a market is that the DSO is allowed cost recovery for flexibility costs.