

THE FUTURE OF UTILITIES

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Market design, tariffs and infrastructures for the new electricity world

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RAPID CHANGE IN THE ENERGY LANDSCAPE

A rapid shift that affects both generation and consumption

Technology driven Incentivized by competition and public policies

Evolving generation structure

- Increased share of variable generation
 - Renewable energy
 - Non-market driven investment
- Aging conventional generation
 - Aging baseload capacity
 - A European-wide concern
- Lack of long term ETS visibility

New consumption patterns

- Advanced load management
- Self generation
- Heating / cooling
- Electric vehicle
- Local storage
- Digitalization

Overcapacity (and low wholesale market prices) as an average But still persisting concerns regarding security of supply (short / long term)

Need for flexibility

New flexibility capabilities

MARKET DESIGNS, TARIFFS AND INFRASTRUCTURES

Infrastructures

- RES generation
- Interconnections
 (and other networks)
- Smart meters
- Data hub / interoperability
- ...and how about conventional generation?

Market designs

- Range of energy markets
- EU regional market coupling
- NEBEF / aggregators
- ARENH
- Capacity markets
- + forthcoming
- Local energy communities
- Renewable energy communities

Tariffs

- New profiles
 - dynamic
 - self generation
- Evolving network tariffs
 - adapted to new profiles
 - more seasonality
- Dynamic retail prices
- Feed-in premium for RES
 - Market driven