The impact of digitalisation on competition in the energy sector

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Marieke Scholz

Head of Unit, Antitrust Energy & Environment (Unit B1)

European Commission - DG Competition

**Speaking in a personal capacity; the views expressed are not necessarily those of the European Commission.*

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Outline

I. Policy context
II. Benefits of digitalisation for competition in energy markets
III. Areas to be monitored closely from a competition law perspective

Policy context

2009	2012	2015	2019	2020	2022	2025	2026
Third Energy Package	**Energy Efficiency Directive**	**Energy Union Strategy**	**Clean Energy Package – Electricity Directive**	**Shaping Europe's Digital Future**	**Digitalising the Energy System Action Plan**	**Clean Industrial Deal (CID) & Affordable Energy Action Plan**	**Strategic Roadmap for Digitalisation and Artificial Intelligence (AI) for the Energy Sector**
Call for MS to initiate the rollout of smart metering systems Smart Grids Task Force (2011)	Promoting smart metering to enhance energy efficiency	Promoting synergies between the Energy Union and the Digital Single Market	Further promoting standardisation of smart metering and empowering consumers	Positioning the energy sector as one of the core pillars of the EU's Digital Transition	First dedicated strategy aimed at digitalisation of the energy sector	Digitalisation recognised as a key enabler of more resilient and affordable energy in the EU	Accelerating digitalisation through implementation of new AI-based tools

- Current strategic objectives:
  - Ending EU's reliance on Russian fossil fuels
  - Tackling the climate crisis
  - Ensuring access to clean and affordable energy for consumers and businesses
- Achieving these objectives requires:
  - Widespread **electrification** across all (possible) sectors
  - A significant **increase in** renewable energy **(RES) production**
  - **Enhanced energy** and resource **efficiency**
  - **Effective management** of the **growing complexity** of decentralised energy systems

Digital transformation of the energy sector is **one of the key enablers** for achieving these goals.

But how does **digitalisation affect competition** and **reshape market dynamics** in the energy sector?

Benefits for competition in energy markets

Smart metering

- **Boosts customer mobility through easier supplier switching**, thereby increasing price and service competition among suppliers
- **Enables innovation and new business models**, thereby fostering new entry beyond traditional utilities
- **Reduces costs for market operations**, thereby lowering entry costs
- **Better grid management and demand response**, thereby facilitating competition in the provision of balancing and ancillary services

Algorithmic trading

- **Increases market liquidity**, thereby enhancing competition in trading markets
- **Lowers transaction costs**, thereby fostering entry and competition by smaller and new entrants
- **Increases multi-homing (e.g. in intraday markets)**, thereby fostering competition among power exchanges
- **Allows for more efficient cross-market arbitrage**, thereby improving market integration and market competitiveness

Blockchain

- **Decentralisation enables direct market participation by small producers, prosumers and startups**, thereby increasing competition from non-traditional players
- **Enhances trust in transactions, certificates and settlement process**, thereby levelling the playing field and reducing incumbency advantage
- **Allows for seamless switching between providers and services**, thereby promoting customer mobility and service competition

Areas to be monitored closely

Data access & interoperability

- **Consumption and smart metering data** is key to transition towards sustainable energy system
- DSOs have crucial role in providing transparent and non-discriminatory access to all actors, including new service providers (e.g. independent aggregators and demand response providers)
- Regulatory framework provides safeguards (requirements for unbundling & data access)
- Scope for possible anti-competitive practices (e.g. metering data access and data portability)?
- **EV charging data (incl. user data on location, load, charging behaviour)** is key for the provision of complementary services
- Regulatory framework promotes data sharing and interoperability (e.g. AFIR and EU Data Act)
- Scope for possible anti-competitive practices (e.g. data access and interoperability)?

Vertical integration & wholesale pricing

- Vertically integrated incumbents can **exploit control over infrastructure to foreclose competitors in downstream markets**
- See e.g. IT NCA Case A557 - *ENEL X* concerning an alleged margin squeeze strategy through setting wholesale EV charging fees at a level that does not allow independent e-mobility service providers (eMSPs) to compete effectively with the incumbent at the downstream level

Areas to be monitored closely (cont'd)

Platform issues

- Accelerating digitalisation may lead to the development of more **multi-service platforms** (e.g. for EV charging, home automation or flexibility markets)
- If operated by dominant or vertically integrated market players, scope for possible anti-competitive practice falling under **Article 102 TFEU** (e.g. platform access / interoperability issues and self-preferencing practices)

AI based algorithmic trading

- Use of algorithms in energy markets has increased strongly driven by energy transition
- Can enhance liquidity and trading efficiency but also increase the risk of **coordinated behaviour** (Article 101 TFEU) **and market manipulation** (REMIT)
- ACM/AFM market study on algorithmic trading in wholesale energy markets

Thank you for your attention!

Marieke.SCHOLZ@ec.europa.eu