

UNIVERSITY OF BERGEN

Law, Market and Technology

On the transformation of Energy law

„Emerging technologies and their impact on the society”

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**If there were only one person in
the World,he or she would
have many problems**

**But none of them would be legal
ones**

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Law as part of the institutional framework in society

- Law is about influencing, regulating and facilitating human behavior and interaction
- Law is an integral and important part of the institutional framework that define and limits the sets of choices of individuals, along with customs, traditions, culture etc.
- The legal institutional framework creates incentives and opportunities for action, or obstacles for innovation and technological development

The Mechanisms of Law

- Direct «command & control»-style regulation
- Indirect influence – incentives and facilitation of action – e.g. property as basis for markets, finance or credit systems
- Taxation mainly intended to give revenue to the State, but can also be designed to influence people 's behaviour
- Law sometimes works in mysterious ways

Law as basis for innovation and development of technology

- Law is influencing technological development and innovation and vice versa
- The unprecedented economic growth experienced the last 200 years is a result of changes in legal institutions
- Development of property law from 16-1700 and especially after 1850 an important pre-requisite for technological and industrial development
- Changes in English property law in the 15- and 1600s and development of corporations in the 1700 basis for the later domination
- Development of intellectual property rights from late medieval time and onwards created basis for innovations

Technology influencing law

- New technology is changing the reality that law operates in, and demands institutional change and new regulation
- Lays the foundation for development of property systems, market regulation etc.
- Legal innovations important drivers of development and facilitating implementation of new technology

From energy as public utility to a commodity in a market

- From WWII – 1990, Energy supply was seen as a public (or semi-public) utility in most countries, supplied by public or semi public monopolies
- Public responsibility to supply the citizens with energy, together with water, telecommunications and transport.
- Part of the general view that state planned activity and regulation were needed in large operations, that dominated the post-WWII-era.

Development of a Market-based Energy law

- From 1990 to the present a market system for energy supply has been developed
- A remaking of the modern World of tremendous economic and social impact that has gone largely unnoticed in public debate
- Introduction of market solutions. Breaking of "natural monopolies" by third party access to grid and pipelines and unbundling (division of energy production and transport). Competition and some degree of privatization.
- Development of electricity markets. Market operator (Nord Pool) in Norway. European Energy Exchange.

Climate change as a new driver of development

- Need for renewable energy and for reduction of carbon emission
- Incentives for production of renewable energy
- Financial instruments. Green certificates and Guarantee of origin (see products on <https://www.eex.com/en/>)
- Emission trading
- Price system (From "day-ahead» to «intraday» trading)

From «consumers» to «prosumers»

- Development of technology where consumers (end-users) can produce their own energy creates new challenges
- Revision of directive 2009/28/EC on renewable energy, article 21
 - «entitled to carry out self-consumption and sell...their excess production of renewable energy without being subject to disproportionate procedures...
 - «maintain their rights as consumers»
- A new restructuring of the electricity market will be necessary in order to meet this development. See <https://www.eex.com/en/products/energiewende-products>

Conclusions

- Technical, legal and market innovation has reshaped energy production and marketing
- A new challenge in integrating small scale production into the market will demand development of the market system
- Opening of the market and making priority for renewable energy production is one of the strongest incentives for new production and technological innovations