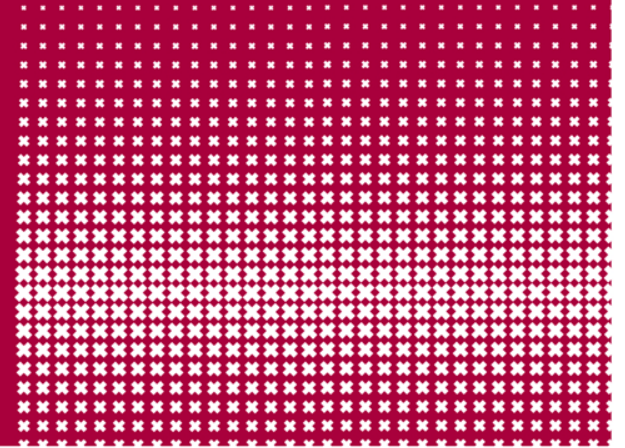




Anna Butenko



User-centered innovation and regulatory framework

Energy prosumers' market access in EU regulation

Presentation Structure

- Theoretic framework: Regulatory disconnection
- Energy prosumers' market activity as an example of user-centered innovation
- Market access for energy prosumers in EU energy law
- Market access for energy prosumers in EU energy policy
- Establishing regulatory disconnection & observations

Regulatory Disconnection

- Comes forward in different formulations & in various academic streams: regulatory disconnect, pacing problem, lack of fit between technology and institutions, etc.
- Refers to a gap between regulation and innovation
- It is neither inevitable nor inherently problematic
- BUT it is problematic when it hampers ‘positive’ innovations

Changes in the European energy markets

Liberalization & internal market drive

Renewable energy sources



The European energy market is subject to conflicting forces: push towards more centralization on European level, and at the same time pull towards more decentralization on national level

Consumers becoming prosumers of energy

The evolution of energy consumers

- Self-sufficiency (primitive) → ‘Plug & Play’ → Self-sufficiency (advanced, prosumerism)
- Local energy is energy produced by prosumers
- Discussion based on the Dutch example
- The Netherlands displays a medium level of market maturity regarding local energy: behind Denmark & Germany, but ahead of many countries in Central & Eastern Europe

Local energy in the Netherlands

- Currently around 500 initiatives, and the number is growing
- Different formats: e.g. wind cooperatives, local initiatives
- Contributing to 0,5% of total Dutch energy demand (2 PJ)
- Currently marginal, but displays characteristics of disruptive innovation (e.g. 'grid-defection')
- National goals of 12 PJ in 2020 (6-fold volume increase)

Energy prosumers as market actors

- Prosuming energy is nothing new, it has been going on for years
- BUT due to technology progress and digitalization, prosumers can* participate in flexibility and balancing markets (national energy market)
- Prosumers can* also trade energy, both on national market and among themselves (local energy market)
- Market access is essential

*Technically possible & economically feasible

User-centered innovation

- User-centered (democratic) innovation is done by users who innovate themselves in order to suit their specific needs
- Prosuming energy is innovation in diffusion stage
- Prosumers' participation in the market (trade/ supply of services/ energy) is innovation in development stage
- Endorsed as 'positive' and 'desired' innovation in EU and Dutch policy documents, aligned with energy policy goals

Prosumers' market access in EU energy law I

- First Energy Package: First Electricity Directive, First Gas Directive
- Prosumers are not mentioned, and final customers are referred to as customers 'buying electricity for [...] own use' (Article 2.9 of Directive 96/92/EC)
- Final customers cannot act as producers of suppliers
- Level playing field for energy producers and other market actors is NOT extended to the prosumers

Prosumers' market access in EU energy law II

- Second Energy Package, containing besides the respective Directives also Regulations
- Prosumers are not mentioned, and final customers cannot act as producers of suppliers
- Level playing field and market access for producers of RES and decentralized energy and their potential disadvantages in comparison to more established market players (e.g. smaller size) are taken into account
- But NOT extended to prosumers

Prosumers' market access in EU energy law II

- Third Energy Package currently in force (the next one is coming?)
- Prosumers are not mentioned, and final customers cannot act as producers of suppliers
- It went an extra mile in guaranteeing third party access to the infrastructure and market (non-discriminatory authorization procedures, tariffs and balancing mechanisms)
- But did NOT include prosumers

Prosumers' market access in EU energy policy I

- ACER's Conclusion Paper 'Energy Regulation: A Bridge to 2025', published in September 2014
 - Recognizes that consumers can be prosumers, indirectly refers to equal market access (via Demand Side Response)
- Communication from the Commission on the Progress towards completing the Internal Energy Market, published in October 2014
 - Suggests that the prosumers could produce flexibility and sell it on the market & stresses the importance of ensuring energy market access for 'new actors, including renewable energy producers'.

Prosumers' market access in EU energy policy II

- Energy Union Package Communication from the Commission published in February 2015
 - Acknowledges the importance of ensuring market access for prosumers and the proactive role of prosumers in providing market services (via Demand Side Response)

- Commission Communication 'Delivering a New Deal for Energy Consumers' and accompanying document 'Best practices on Renewable Energy Self-consumption', published in July 2015
 - **Defines prosumers (!!!)** & states the importance of ensuring market access for prosumers (e.g. via aggregators)

Is regulatory disconnection problematic?

- The energy prosumers' participation in the national energy market (flexibility, balancing, demand side response) is endorsed in EU policy documents as positive and desirable user-centered innovation
- The energy prosumers' participation in the local energy market (peer-to-peer transactions) is only endorsed as positive and desirable in 'Best practices on Renewable Energy Self-consumption' document
- Hence, regulatory disconnection in case of prosumers' market access would be problematic

Establishing regulatory disconnection I

- Regulatory under- and over-inclusiveness is one of the common formats of regulatory disconnection
- Prosumers still fall under the definition of consumers in EU energy law, and not under the definitions of producers & suppliers
- Prosumers are under-included in the current definitions of producers and suppliers (do not allow for the idea that a consumer could also produce/ supply)
- Prosumers are over-included in the definition of consumers (too narrow for their new role)

Establishing regulatory disconnection II

- Unrestricted and non-discriminatory market access is described in the European energy law is an essential prerequisite for the creation of internal market
- However energy prosumers are not currently included in the scope of unrestricted and non-discriminatory market access
- There is an evident disconnection between the reality (broadened role of prosumers) and the EU energy law
- Regulatory disconnection is less pronounced in EU energy policy

Recommendations EU energy law & policy

- A possible way of addressing the identified regulatory disconnection is broadening the definition of producers and suppliers in order to extend it to prosumers
- The Directives already contain provisions regarding special ‘milder’ approach towards authorization procedures, etc., for producers of renewable and decentralized energy, and thus including the prosumers in the definition’s scope would guarantee the level playing field for such actors
- It seems that this is indeed the intention voiced in the relevant European energy policy



Thank you for your attention!

Anna Butenko

PhD Candidate Energy Law & Economics
Amsterdam Centre for Energy
University of Amsterdam

a.s.butenko@uva.nl