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THE REGULATORY CONSUMER:
PROSUMER-DRIVEN LOCAL ENERGY PRODUCTION INITIATIVES

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Key words

EU law, energy law, regulation, consumer, prosumer, energy market



Abstract

This paper analyzes the (pro)active role consumers could (and are encouraged by the respective policy to) assume in markets that emerged due to European market liberalization and technological changes. These changes expanded consumer markets and changed regulatory architectures accordingly. Consumers' purchasing decisions became key to the well-functioning of markets: they are entrusted to regulate markets and contribute to the competitiveness and the legitimacy of market processes. In the EU, consumers are expected to contribute both to EU market integration and to European society.

However, this new regulatory role of the consumer is not matched with a corresponding legal framework. The policy discourse on consumers' active participation in markets and even their accountability for regulating markets is not matched with the necessary legal (consumer) provisions to do so. The mismatch between legal rules and consumers' new role in market regulation may lead to regulatory ineffectiveness and legal uncertainty. Moreover, while technological developments make this active consumer role possible, there is in fact also a gap between law and technological development, which can lead to the problem of 'regulatory disconnection.' These problems are especially present in the EU energy sector, where technical developments such as smart meters, solar panels, decentralized energy storage, etc., enable a proactive role of energy consumers. Consumers are often prosumers of energy i.e. consumers who produce their own energy.

This paper critically analyzes current EU law on the (energy) consumers' new role in market regulation. It analyzes normative EU law concepts and definitions of the consumer and examines whether and how rules comply with the concept of the active regulatory consumer. The paper uses a case-study of the prosumer-driven local energy production initiatives and examines whether the energy consumers' new role creates regulatory disconnection, especially if it is not matched by the progress in corresponding EU law provisions.

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1. INTRODUCTION

Traditional European market regulation conceived consumers as passive market parties in a weak bargaining position who were unable to discipline firm behaviour on the market. Accordingly, consumer laws and policies proactively intervened in markets by means of mandatory rules and aimed at redistributing the costs between contracting parties in order to restore bargaining power between them.

However, as global economic restructuring processes and technological changes expanded consumer markets, deregulatory policies began to address consumers as active market actors who hold relevant regulatory powers. The state's protective role was rolled back and consumers were put in the driving seat of market regulation. Consumers now have individual responsibility as active economic agents whose purchasing decisions are key to the well-functioning of markets: they, in fact, now regulate markets. In this regulatory role consumers even bear a certain degree of accountability for this new market governance model, which builds on the consumers active participation in the markets and their contribution (through activity) to both the competitiveness and the legitimacy of market processes. In the EU context the concept of regulatory consumer is communicated in public policies articulating consumer empowerment. Consumers are addressed as regulatory subjects who should contribute both to EU market integration and to European society. The question this paper addresses is how EU law has implemented this new policy and whether this active role of the consumers meets a corresponding legal framework in the EU.

The paper analyzes the EU law definitions of the consumer and the normative concept of the 'average consumer' in order to establish whether they reflect the consumers' newly emerging accountability for regulating markets.¹ It analyzes how EU law implements the development of consumers' role in market regulation from a passive beneficiary to an active participating economic agent. If there is a mismatch between legal rules and the new role consumers should assume in market regulation the problem of regulatory connection could arise and result in a gap between technology, market conditions and legal institutions, as formulated in the institutional economics literature.² Where the legal rules do not comply with the pace of market development as a result of e.g. technologic innovation, regulatory

¹ *A European Consumer Agenda - Boosting confidence and growth ... Consumer policy as an essential contribution to Europe 2020* COM(2012) 225 final

² Regulatory disconnection can arise due to technology progress, as well as due to the changes in behavior and attitudes catalyzed by a specific innovation. See Brownsword, R., Goodwin, M., (2012), *Law and Technologies of the Twenty-First Century*, Cambridge University Press, Cambridge, UK;

Künneke, R. W. (2008), *Institutional reform and technological practice: the case of electricity*, 17 *Industrial and Corporate Change* 2, pp. 233- 65



ineffectiveness, legal uncertainty, regulatory gaps, and regulatory over- or under-inclusiveness could emerge.³

These questions are especially present in the energy sector, where technological developments such as smart meters, solar panels, and decentralized energy storage (batteries) enable a proactive role of energy consumers. While consumers previously had a passive, consuming role, and were confronted with top-down determined energy supply options, services, and prices, they can now produce (a part of) their own energy and act as so-called prosumers.⁴

This paper critically analyzes the energy consumers' new role in market regulation and examines whether and how the normative concepts and definitions in EU (consumer) law comply with the concept of the (pro)-active energy consumer. The paper uses a case-study of the prosumer-driven local energy production initiatives and examines whether energy consumers' new role creates regulatory disconnection, especially if it is not matched by the progress in corresponding EU law provisions.

³ Bennett Moses, L., (2013), *How to Think about Law, Regulation and Technology: Problems with 'Technology' as a Regulatory Target*, *Law, Innovation and Technology* 5 (1), pp. 1- 20

⁴ Pront-van Bommel, S. (2010), *De elektriciteitsconsument centraal?*, in Pront-van Bommel, S. (ed.) (2010), *De consument en de andere kant van de elektriciteitsmarkt*, Centrum voor Energievraagstukken, Universiteit van Amsterdam, pp. 18- 62



2. CONSUMERS' NEW ROLE IN REGULATING ENERGY MARKETS

2.1. Transition to new European regulatory architecture

From the end of the 1990s a new set of consumer rules emerged in the European public utilities sectors, which were liberalized in the course of the accelerated EU integration. In these sectors the EU adopted a market-oriented approach to deliver public goods and services in order to activate competition and generate greater efficiency. While the nation states were 'rolled back', public utilities became integral part of the internal market. The (de)regulatory approach strongly focused on supply side market failures and primarily targeted competitive market structure by introducing specific regulatory frameworks that complemented existing competition rules and institutions.

The role and function of private consumers in the liberalisation process has been mainly neglected.⁵ This led to the late development of sector specific consumer rules and consumer protection issues as elements of the EU liberalization.⁶ Nevertheless, consumers were given responsibilities to activate competition, to make decisions and enforce their rights in markets where previously they were dependent on the state. Consumers have been entrusted with tasks that used to belong to the public law realm. Accordingly, the emerging consumer rules were based on public law goals of competition, market regulation and EU integration. This consumer law model mainly consists of regulatory law to complete the internal market and strengthen competition building a new 'horizontal' regime of consumer contract law.⁷

Therefore, it is fair to say that with the rise of neoliberalism, regulatory goals and techniques changed and government's position became decentred by shifting regulatory powers from the state to, among others, consumers. The new regulatory architecture de facto positioned consumers as regulatory subjects who actively contribute to market practices rather than as passive recipients of regulatory protection.⁸ Consumers became accountable for their own acts and they came to be seen as influential market actors who can directly regulate firm behavior and indirectly influence market performances. Public policies depict consumers as market actors who actively search markets, monitor firms and

⁵ Reisch, L. A., Micklitz, H. W. (2006), Consumers and deregulation of the electricity market in Germany, *Journal of Consumer Policy*, 29(4), pp. 399-415

⁶ Cseres, K. (2008), What Has Competition Done for Consumers in Liberalised Markets?, *Competition Law Review*, Vol. 4, No. 2, pp. 77-121

⁷ While this regulatory law addresses the consumers, it, in fact, transcends the internal relationship between producers or service providers and consumers to the external dimension of the well-functioning of markets. See Reich, N. (2011), Harmonisation of European contract law: with special emphasis on consumer law, *China-EU Law Journal*, 1(1-2), pp. 55-94. p.71

⁸ Ramsay, I. (2006), Consumer Law, Regulatory Capitalism and the 'New Learning' in Regulation, *Sydney Law Review*, 28 (1), pp. 9-35.



switch providers and who may even drive out dishonest, incompetent firms. In fact, regulators use consumers' purchasing power and regulatory function as the source of justifying and legitimizing the market processes.⁹

This new 'regulatory' role of the consumer is present in various new regulatory architectures in the telecommunications,¹⁰ the energy market,¹¹ as well as in many areas of the so-called sharing economy.¹² Energy market represents a good illustration of how the new regulatory role of the consumers developed, how it is currently conceived in public policies and what kind of legal rules frame this development. Accordingly, it is necessary to briefly refer to the developments in the energy markets in recent years and to explain the roles energy consumers may fulfill in this market.

2.2. Consumers in energy markets

The traditional energy system in terms of its technical and market design, as well as the regulatory framework supporting it, used to be organized according to the value chain from energy production, to transport, storage and then distribution both in the national and EU-wide markets.¹³ However, in recent years many developments have impacted this structure. First, liberalization and EU market integration goal pushed the dynamics of the energy market towards a pan-European, harmonized and coordinated model.¹⁴ Second, the intensifying security of supply and climate change concerns triggered the emergence of renewable energy sources (RES) in the energy mix of the Member States.¹⁵ Thereby

⁹ Williams T. (2007), Empowerment of Whom and for What? Financial Literacy Education and the New Regulation of Consumer Financial Services, *Law & Policy*, 29, pp. 226-256.

¹⁰ Brown, I., Marsden, C. (2013), Regulating Code: Towards Prosumer Law?, Available at <http://ssrn.com/abstract=2224263>

¹¹ Hancher, L., en T. Boersma, T. (2007), Connection, consumer, citizen. Liberalising the European Union gas market, available at http://www.wrr.nl/fileadmin/nl/publicaties/PDF-webpublicaties/Connection_consumer_citizen.pdf

¹² Sharing economy is defined as companies who deploy accessibility based business models for peer-to-peer markets and its user communities. This type of business model is not limited to specific industry sectors, because it can, in theory, act as a broker between consumers, for any consumer owned product or service. Whereas in the conventional situation consumers would buy products and become the owners, in an accessibility-based system consumers pay for temporary access-rights to a product. Business Innovation Observatory, The sharing economy, case study 12, EU, September 2013, available at http://ec.europa.eu/enterprise/policies/innovation/policy/business-innovation-observatory/files/case-studies/12-she-accessibility-based-business-models-for-peer-to-peer-markets_en.pdf

¹³ Pront-van Bommel, S. (2012), Een redelijke energieprijs. De mythe van de marktwerking, Centrum voor Energievraagstukken, Universiteit van Amsterdam; Roggenkamp, M. M., Tempelman, D. (2012), Looking Back, Looking Ahead- Gas Sector Developments in the Netherlands and the EU: from Manufactured Gas via Natural Gas to Biogas, 30 *Journal of Energy & Natural Resources Law* 4: pp. 523- 537; Buist, G., Pront-van Bommel, S. (2011), Decentrale Energievoorzieningen: van Net naar Gebruik. Bezien vanuit het gebruikersperspektief, Centrum voor Energievraagstukken, Universiteit van Amsterdam

¹⁴ Roggenkamp and Tempelman (2012) (n 15)

¹⁵ RES are usually produced in a more decentralized manner compared to traditional fossil energy sources. Combined with an increased level of energy-related awareness of the population, as well as technological progress and respective increasing affordability of technology, this creates a bottom-up pull in the energy market towards



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. The effects of these developments on energy consumers and the energy consumption patterns in the local markets can be analyzed by studying the various roles energy consumers may adopt in markets- especially the appearance of so-called prosumers, as well as the broader implications of exercising such roles such as the so-called user-centered innovation.¹⁶ The various roles energy consumers may adopt in markets are regarded below:

2.2.1. The roles of the energy consumer

Whereas with regard to most products and services a consumer has some degree of choice whether to purchase it or not, she has much less choice in relation to energy.¹⁷ Energy is a basic necessity and therefore, most people are consumers of energy at least to some extent. Therefore, for the vast majority of the population some level of consumption is present. Respectively, it is more reasonable to classify consumers according to their consumption. There are a number of consumption patterns energy consumers could engage in, such as passive consumption, active consumption, responsible consumption, and prosuming consumption. These patterns are regarded in turn:

Passive consumption is the default option for energy consumers, which means that consumers do not actively participate in the market: they rarely change suppliers, do not actively engage in either energy- or cost-savings. In contrast, active consumption presumes active participation in the market and active interaction with the energy suppliers. This type of consumers actively investigate and compare the alternatives on the market, switch energy suppliers, insulate their houses to lower the energy bills, etc. The active energy consumption and active consumer participation in the market is meant to stimulate competition, generate more efficiency and more affordable energy prices.¹⁸

The key element of active energy consumption is the ability of the consumer to make a reasonable and informed choice between energy suppliers. However, this competence could only be exercised in competitive markets with alternative suppliers. Consequently, the creation of a well-functioning energy market is a collaborative effort between the government and consumers. The former contributes

distributed and smaller-scale energy production. Roggenkamp and Tempelman (2012) (n 15), Pront- van Bommel (2012) (n 15), Buist and Pront-van Bommel (2011) (n 15)

¹⁶ Von Hippel distinguishes between ‘user-centered innovation’ and ‘manufacturer-centric innovation’. In making this distinction, the author emphasizes the actors who innovate: he argues that there is currently a ‘trend toward democratization of innovation’, meaning that users of products/ processes/ services can innovate themselves in order to suit their specific needs, rather than rely on the manufacturers to do so for them. Von Hippel, E., (2005), *Democratizing Innovation*, MIT Press, Cambridge, MA, USA

¹⁷ This paper focuses only on the household and small commercial consumers, and exclude industries, as their energy consumption dynamics is rather different.

¹⁸ Lavrijssen, S.A.C.M. (2014), *The different faces of the energy consumers: Towards a behavioral economics approach*, *Journal of Competition Law and Economics*, 10(3), pp. 257-292.



through market opening (e.g. unbundling the vertically-integrated undertakings, removing entry barriers for new market parties) and 'steering' market processes, while the latter contributes through the actual choice to make the switch.¹⁹

Competitive energy markets are not only important for achieving lower energy prices, but also as a mechanism ensuring a sufficient level of security of supply and the stimulation of innovation.²⁰ Therefore, whereas it is fair to say that the primary motivation for the consumers to engage in active consumption is prudential (a better deal with the suppliers in terms of lower prices, improved service), moral considerations could also play a role.

It is so-called responsible consumption that goes further than active consumption and also takes public policy factors into account, such as the presence of the renewable energy sources (RES) in the energy mix of the supplier.²¹ This consumption pattern also makes a certain collaboration necessary between the government and the consumers: Whereas the government could take certain steps in the direction of achieving the European and national environmental goals (e.g. RES production subsidies, quota obligations for suppliers, energy efficiency programs), the effect of these steps would not reach its full potential without the consumers' positive response, such as switching to suppliers offering (more) green energy, insulating their houses, etc.

Both active and responsible consumption could take a number of different formats and benefit the energy policy goals in a number of ways, and namely: active market participation, generating energy efficiency and flexibility or active participation in network operation. Whereas active market participation has already been discussed above, we focus on the remaining means of consumers' participation:

Consumers can contribute to energy efficiency by the means of two main mechanisms: behavior adjustments and/ or technology. By becoming more aware of their energy consumption and its price, the consumers are able to adjust their behavior and consequently lower their energy demand, and hence also their expenses. The latter aspect is not insignificant, as energy could represent a significant

¹⁹ Therefore switching behavior of the energy consumers is often seen as an important measure of assessing the energy market's functioning and liquidity by the European and national policy-makers. See Pront-van Bommel (2010) (n 6)

²⁰ Pront-van Bommel (2010) (n 6)

²¹ For example, whereas for 72% of consumers switching to a new supplier in 2013 in the Netherlands the price of energy played the main role, for 14% the choice for renewables was an equally important factor (in total 12,7% of consumers switched in 2013, and 55% in the past 10 years). See Energeia news item, ACM ziet geen toename aantal switchers vanwege 'verliesaversie' onder consumenten, 20 november 2014, available (for subscribers) at <http://energeia.nl/nieuws/481664-1411/acm-ziet-geen-toename-aantal-switchers-vanwege-verliesaversie-onder-consumenten>



cost for the consumers, and it is only projected to increase in the future.²² Various studies estimate that the responsible consumption of energy could lead to 5 to 15% savings in the total energy demand.²³ Energy efficiency could also be achieved by technological applications, such as insulating the house, procuring more efficient energy appliances.

Besides actively participating in the energy market and consuming energy in an efficient manner, active and responsible consumption could generate flexibility. Flexibility is defined as the ability of consumers to react to the conditions on the market within a relatively short period of time.²⁴ Flexibility is also most often driven by the combination between consumers' behavior adjustment and the technical solutions. The latter play a crucial role, as the provision of flexibility for the energy market by the consumers is a relatively new phenomenon, which became possible largely due to the technical developments such as smart meters and supporting ICT applications, as well as smart appliances.

Moreover, active and responsible consumption could also contribute to balancing the grid. Balancing is an essential element of operating the electricity grid: the supply of electricity has to be directly matched to the demand of it, as electricity cannot be stored, and as disbalance between the two in the electricity network could lead to technical problems, such as black outs.²⁵ Traditionally balancing is managed by the national electricity transmission system operator (TSO) who, in doing so, relies on the large market players (e.g. producers, large industrial consumers) to adjust their production and consumption in response to the balancing needs of the TSO. Due to the earlier-described technical progress such as the roll out of smart meters and the ICT applications development it is technically possible for the individual consumers to contribute to balancing the electricity grid.

In sum, active and responsible energy consumption is essential for the realization of clean, reliable and affordable energy supply in the competitive environment where all the parties have the freedom of choice.²⁶ In other words, such energy consumption contributes to all three pillars of the European energy policy- sustainability, competitiveness, and security of supply.

²² For example, an average Dutch household was spending around 6% of their income on energy bills in 2008. See Pront-van Bommel (2010) (n 6)

²³ Huygen, A. (2010), *De consument en de (on)vrije elektriciteitsmarkt*, in Pront-van Bommel, S. (ed.) (2010), *De consument en de andere kant van de elektriciteitsmarkt*, Centrum voor Energievraagstukken, Universiteit van Amsterdam, pp. 96- 136

²⁴ Flexibility is gaining importance as the share of the intermittent renewable energy sources in the energy mix is increasing, and therefore its role is only projected to rise in the future. Consumers could contribute to flexibility either by adjusting the volume of energy consumed or by shifting the timing of their consumption. Huygen (2010) (n 25)

²⁵ Pront-van Bommel, S., Buist, G. (2014), *Distributiesystemen op Maat*, Centrum voor Energievraagstukken, Universiteit van Amsterdam

²⁶ Huygen (2010) (n 25)



2.2.2. *The energy prosumers*

Energy consumers act in response either to negative or to positive market developments: For example, if the quality or price of a product/ service does not meet the expectations of the consumers, they can choose to exit the market fully or partially (contra-articulation) and produce their own product/ service instead.²⁷ An example of such contra-articulation in the energy market is consumers exiting the traditional energy supply model, and producing their own energy as a response to increasing prices or frequent interruptions of supply, and/ or as a response to environment protection concerns.²⁸ If the consumers are satisfied with the product or service, they might enter the market and/ or take part in co-producing or co-designing the product or service in question (pro-articulation). An example of such response is installing the solar panels as the way of entering the market, and participating in a pilot project testing smart grids as the way of prototyping.²⁹ While doing so consumers may innovate themselves in order to suit their specific needs and in fact engage in user-centered innovation i.e. introducing innovative technologies and market designs and develop new consumer behaviors.³⁰

An illustrative example of such user-centered innovation and of pro-active interaction of consumers with their market counter-parts- energy suppliers- are the energy prosumers. Prosumers are consumers who produce or co-produce (a part of) their energy demand.³¹ Prosuming consumption is, in fact, a more encompassing form of responsible consumption. Energy consumers could engage in prosuming consumption either individually or collectively. An illustration of individual prosuming consumption is a household energy consumer who installed solar panels on her roof, and is using renewable solar energy for her needs, complementing it with electricity from the grid when own production is not necessary, and injecting it in the grid when the production exceeds demand. In such situation the energy consumer has a number of different, and yet simultaneous, roles: she is a producer, a consumer, and a supplier at the same time.

The energy production performed by the energy prosumers is referred to as 'local production'.³² It is important to distinguish local production from decentralized production.³³ Local production is

²⁷ Reisch and Micklitz (2006) (n 7)

²⁸ Pront-van Bommel (2010) (n 6)

²⁹ Pront-van Bommel (2010) (n 6)

³⁰ Von Hippel (2005) (n 18)

³¹ Pront-van Bommel (2010) (n 6)

³² Huygen (2010) (n 25)

³³ Decentralized production includes production which is usually fed into distribution networks (as opposed to transmission networks traditionally used by the incumbent producers). It is usually driven by commercial parties, such as agrarian and farm producers, large organizations (e.g. hospitals), office parks. Netbeheer Nederland (2013), *Eindrapportage Netbeheer Nederland Onderzoek Decentrale Markten. De Proeftuin 'Decentrale Duurzame Collectieven'. Van realisatie naar de toekomst. Energieke burgers, duurzaam decentraal en de betekenis voor de netbeheerders en netbeheer*, available at <http://www.netbeheernederland.nl/publicaties/onderzoek/>



individual-consumer driven, either as a single household or as a group- e.g. consumer collective.³⁴

Besides the different roles individual energy prosumers may have, energy collectives could also play a role in the operation of energy networks, for example, by operating own private networks or through the operation of the local energy storage, either virtual (e.g. batteries in the houses, or in electric cars of the members of the collective) or physical.³⁵ It is often not the prudential factors (e.g. lower prices, better service) that play the main role in the decision of the energy consumers to qualify them as prosumers, but rather moral considerations, such as contributing to the energy transition, strengthening the local economy and social cohesion in the local community or having more direct impact upon own energy supply.³⁶

Besides producing energy for own needs, and/ or for the needs of the fellow collective-members, both individual and collective prosumers could contribute to the provision of flexibility³⁷ and grid balancing. Prosumers could thus produce both energy and energy market services. This is the main difference between responsible and prosuming consumption patterns: Whereas responsible consumers provide market services in response to market-generated demand for these services and accordingly introduced variable prices, prosumers sell their services on the market, providing supply of services. In other words, the former are reactive, whereas the prosumers are proactive. It could also be said that the two are distinguished by the criteria of market access, which is absent for the situation where consumers engage in responsible consumption, and which is an absolute prerequisite for the prosuming consumers.³⁸

Prosuming consumption contributes to all three objectives of the European energy policy sustainability, competitiveness, and security of supply. Moreover, the potential positive impact of the prosuming consumption pattern is higher compared to that of the responsible consumption: First, it contributes to

³⁴ It is estimated that currently the Netherlands counts around 500 energy prosumers' collectives. Such collective efforts of the energy prosumers can assume different formats, and range from a somewhat loose and sporadic cooperation e.g. regarding the collective procurement of solar panels for a number of household consumers in the neighborhood, to a much more structured and organized local sustainable energy cooperations, that, besides producing renewable energy, also supply it to its members. Not in all cases local energy production takes place directly in the home of the energy consumers: It is also possible for the latter to take part in a further-located initiative, such as wind or solar parks. See Netbeheer Nederland (2013) (n 35) and HIER Opgewekt, <http://www.hieropgewekt.nl/>

³⁵ Netbeheer Nederland (2013) (n 35)

³⁶ Netbeheer Nederland (2013) (n 35)

³⁷ Prosumers could choose to invest into flexibility-enhancing measures, such as an electricity batter installed in their house (or other format of energy storage), or an electric vehicle. Huygen (2010) (n 25)

³⁸ The notion of market access presumes access to three interconnected, but at the same time different, markets, and namely the market for commodity (the possibility to sell produced electricity on the market), the market for capacity (the possibility to transport produced electricity), and the market for flexibility (the possibility to sell available flexibility for various purposes, such as peak flattening or balancing). Netbeheer Nederland (2013a), *Decentrale markten. Kaders & definities richting een intelligent energiesysteem*, available at <http://www.netbeheernederland.nl/publicaties/onderzoek/>



reaching the renewable energy production and the energy efficiency goals at both national and European levels, as prosumption often involves measures towards energy savings as well as local sustainable energy supply (e.g. solar panels on the roofs, geothermal energy).³⁹ Similarly, prosumers can play an important role in the functioning of local smart distribution systems and increasing the overall efficiency of these systems: By reducing the peak consumption through either energy efficiency or consumption flexibility the prosumers can achieve a reduced necessary peak capacity of the distribution system, which would consequently translate into lower total costs and hence increase social welfare.⁴⁰ Thirdly, prosumers can also act as providers of flexibility and balancing services, the need for which increases with the progressing rate of renewable and intermittent energy sources in Europe.⁴¹ Finally, the energy prosumers – either individually or collectively – act as ‘seedbeds of innovation’ while engaging in user-centered innovation.⁴²

The above overview shows that energy consumer has a number of different roles. These roles are not exclusive in the sense that the same individual consumer could perform a number of roles at the same time. In these roles consumers contribute to the realization of public policy goals such as sustainability, competitiveness, and security of supply of the EU and national energy markets. The next section explains why it is relevant that consumers are economically and legally capable of exercising these roles.

2.2.3. The relevance of the energy consumers’ roles in regulating energy markets: User-centered innovation and regulatory disconnection

The above analysis on the various roles consumers may adopt in the energy markets showed that consumers fulfill a constitutive role in realizing public policy goals of market regulation. One way consumers can actively contribute to the competitiveness of energy markets is the user-centered innovation mentioned earlier in the current paper.⁴³ Prosuming consumption pattern is, in fact, illustrative of the user-centered innovation that is currently materializing in the European energy markets.

³⁹ Hakvoort, R., Huygen, A. (2012), *Sturen op het Gebruik van Lokale Energienetten*, available at <http://www.rijksoverheid.nl/bestanden/documenten-en-publicaties/rapporten/2012/11/08/sturen-op-het-gebruik-van-lokale-energienetten/d-cision-tno-eindrapport-sturen-op-lokale-energienetten-5-oktober-2012.pdf>;

Buist and Pront-van Bommel (2011) (n 15)

⁴⁰ Such effect would be achieved due to the fact that the necessary infrastructure investments are socialized and subsequently recovered through tariffs. See Huygen (2010) (n 25)

⁴¹ Hakvoort and Huygen (2012) (n 41), Buist and Pront (2011) (n 15)

⁴² Arentsen, M, Bellekom, S. (2014), *Power to the people: local energy initiatives as seedbeds of innovation?*, m Energy, Sustainability and Society 2014, 4:2, available at <http://www.energysustainsoc.com/content/pdf/2192-0567-4-2.pdf>

⁴³ Von Hippel (2005) (n 18)



We follow the perspective of law and technology literature considering the value of innovation, namely that innovation is not inherently good, but rather could have a number of outcomes, ranging from benefit, to status quo, and to harm.⁴⁴ Accordingly, we consider innovation not as an end in itself, but rather as a means to an end. In other words, user-centered innovation realized by energy prosumers is instrumental to realize the goals on European energy policy and it should be evaluated in this context. Therefore, if energy prosumers for some reason cannot fully realize their ambitions regarding their role in the energy market, or encounter obstacles, user-centered innovation is hampered, which potentially has negative consequences for the realization of European energy policy goals.

User-centered innovation in the energy sector can be attributed to a multitude of factors, such as technology development, behavioural changes of technology users, as well as market, economic, political and regulatory aspects. All these factors are simultaneously shaping innovation and are being shaped by it: at any given moment in time, the institutional and market structures reflect a certain set of assumptions regarding technological developments, political, economic and social preferences.⁴⁵ If one of these factors changes while the rest do not (e.g. innovation progresses, while the regulatory system stays behind), a discrepancy between them inevitably arises. This phenomenon is described as the situation when technology develops faster than the corresponding regulation, the latter falling behind, and is commonly referred to as 'pacing problem' in the US-originating academic literature.⁴⁶ The same situation is referred to as 'challenge of regulatory connection' or 'regulatory disconnection' in the European-based scholarship,⁴⁷ and it is commonly described as the widening gap between the current regulatory environment based upon the 'technological landscape of the past' and the occurring innovations revolutionizing this landscape.⁴⁸ The challenge of regulatory connection can manifest in a number of ways, and namely: regulatory obsolescence, regulatory void or gaps, ambiguity in the application of existing regulations, and/ or regulatory over- or under-inclusiveness.⁴⁹

⁴⁴ Edgell, R. A., Vogl, R., (2013), *A Theory of Innovation: Benefit, Harm, and Legal Regimes*, Law, Innovation and Technology 5 (1), pp. 22- 53

⁴⁵ Künneke, R. W., Groenewegen, J. P. M. (2009), Challenges for readjusting the governance of network industries, in Künneke, R. W. et al. (eds) (2009), *The governance of network industries. Institutions, technology and policy in reregulated infrastructures*, Cheltenham, UK and Northampton, MA, USA, Edward Elgar

⁴⁶ Marchant, G. E. et al. (eds), (2013), *Innovative Governance Models for Emerging Technologies*, Edward Elgar Publishing, Cheltenham, UK;

Marchant, G. E. et al. (eds), (2011), *The Growing Gap between Emerging Technologies and Legal-Ethical Oversight. The Pacing Problem*, The International Library of Ethics, Law and Technology, Vol. 7, Springer

⁴⁷ Brownsword and Goodwin (2012) (n 4);

Brownsword, R., Somsen, H., (2009), *Law, Innovation and Technology: Before We Fast Forward- A Forum for Debate*, Law, Innovation and Technology 1 (1), pp. 1- 73

⁴⁸ Bennett Moses (2013) (n 5)

⁴⁹ Bennett Moses, L., (2011), *Agents of Change: How the Law 'Copes' with Technological Change*, Griffith Law Review 20 (4), pp. 763- 794



The challenge of regulatory connection is neither inevitable, nor inherently negative. First, many innovations fall within the scope of existing regulations.⁵⁰ One could even argue that falling behind the technologic and socio-economic reality to some extent could be expected from regulation, due to its inherent goal of legal certainty.⁵¹ Whereas there is significant disagreement in the academic literature (namely between law and economics and law and technology academic streams) regarding the necessity and the 'ideal' means of addressing regulatory disconnection,⁵² there is a strong consensus regarding the idea that regulation should at least not stifle innovation.⁵³ This common ground between the two academic streams is the basic assumption the current paper is built on, namely that the legal framework underlying consumers' (pro)active role should not to restrict the flows of innovation. In other words, regulatory disconnection between innovation and respective regulation is not problematic as such, but only when it represents an obstacle for the realization of positive aspects of the innovation.

Against this background the hypothesis of this paper is that there is currently regulatory disconnection between the energy prosuming trend in Europe and the respective regulatory framework and that the legal framework should enable energy consumers to actively participate in markets. More specifically, regulatory disconnection may arise due to the fact that the present regulatory framework does not implement the various roles available to consumers in markets. In other words, when prosumers are already active on the energy market, whereas the possibility of such role is not available in European or national energy law provisions- there is a regulatory gap.

Moreover, there might be a mismatch between the roles for consumers as described in the respective regulatory framework and the actual behavior of consumers in the market. There could be a mismatch between the normative concept of the consumer and how consumers actually behave in markets, which could lead to so-called under- or over-inclusiveness. The legal framework is under-inclusive when it is based on the concept of consumers as passive consuming parties and on the concept of producers and suppliers as large market players because when none of these categories applies clearly and

⁵⁰ Brownsword and Goodwin (2012) (n 4); Bennett Moses (2011) (n 51); Koops, B. J., (2010), Ten Dimensions of Technology Regulation: Finding your Bearings in the Research Space of Emerging Technologies, in Goodwin, M. et al. (eds), (2010), Dimensions of Technology Regulation, Conference proceedings of TILTING Perspectives on Regulating Technologies, Wolf Legal Publishers, Nijmegen, the Netherlands

⁵¹ Ranchordás, S. (2015), Constitutional Sunsets and Experimental Legislation: a Comparative Perspective, Edward Elgar Publishing

⁵² Generally speaking, law and economics literature assumes that action needs to be taken only when needed, and not as a rule, and hence there are no strong preferences regarding the exact timing of regulation in relation to innovation- it can take place both ex ante and ex post. In contrast, law and technology literature assumes that the mandate for intervention is automatic, and that the 'optimal' situation is for regulation to intervene at the very beginning stages of innovation (invention) and maintain that connection throughout the stages of diffusion and social impact. See Butenko, A., Larouche, P. (2015), *Regulation for Innovativeness or Regulation of Innovation?*, Law, Innovation and Technology 7 (1)

⁵³ Ranchordás (2015) (n 53); Bennett Moses (2013) (n 5); Brownsword and Goodwin (2012) (n 4); Bennett Moses (2011) (n 51); Brownsword and Somsen (2009) (n 49)



unambiguously to prosumers who are simultaneously both consumers and producers. Moreover, the regulatory framework could prove to be over-inclusive for energy-producing consumers, representing an obstacle to their proactive market role and to market developments in general.

In order to test the above-proposed hypothesis, the paper analyzes the following questions: Which normative concepts and definitions of the consumer are available in EU law and in EU energy law? Do these normative concepts and definitions of the consumer correspond to the possible (pro)active roles of the energy consumers in the European energy market? In other words, is there a regulatory disconnection between the normative concepts of the consumer in EU law and consumers' actual role they can fulfill in the energy markets? And if so, which implications this regulatory disconnection have for the prosuming trend in Europe? These questions are addressed in the next section.

3. THE DEFINITION AND THE NORMATIVE CONCEPT OF THE CONSUMER IN EUROPEAN LAW

Notwithstanding the relative importance of the energy sector for EU and its Member States, it does not have any specific legal basis in primary EU law.⁵⁴ Accordingly, general EU law applies to the energy market as well as secondary law that was legislated as sector-specific regulation.⁵⁵ In this context it is necessary to analyze the concept of consumer adopted in the EU law:

3.1. The EU regulatory model of consumer protection

Perhaps the most important characteristic of the EU law and policy concerning consumer protection is that it has developed as part of the internal market process with the goal of creating a level playing field for business. The original perception behind the EU consumer rules was that businesses needed a common set of rules in order to take advantage of the internal market. Accordingly, the harmonization of consumer rules was not an end in itself,⁵⁶ and consumers were merely regarded as the passive beneficiaries of free trade and market integration.

Thus, EU consumer law has been characterized as being instrumental and protective.⁵⁷ It is instrumental, as its primary goal was to complete the internal market and this significantly influenced its protective function, shifting the European normative concept closer to free market mechanisms than social policy concepts. EU consumer protection has been characterized by a normative concept of a well informed and confident consumer and by the adoption of information provisions. These two key characteristics are analyzed in the next sections by examining how they correspond to the model of the active 'regulatory' consumer and the prosumer.

3.2. The definition and the normative concept of the consumer

The definition and the normative concept of the consumer that underlies the legal rules of market regulation has to correspond to the economic and technological reality of markets and the real-life

⁵⁴ Legal basis does exist in the European Coal and Steel Community Treaty expired in 2002, and European Atomic Energy Treaty, referring to coal and nuclear energy respectively. See Hancher, L., De Hauteclocque, A. (2010), *Manufacturing the EU Energy Markets: The Current Dynamics of Regulatory Practice*, TILEC Discussion Paper No. 2010-003, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1539901

⁵⁵ Hancher and De Hauteclocque (2010) (n 56)

⁵⁶ Most of the directives were based on Article 114 TFEU and thus their stated rationale was to combat market fragmentation. Early directives regulated misleading advertising, doorstep selling, consumer credit, package travel, distance selling. See Weatherill, S. (1996), *After KECK: Some Thoughts on How to Clarify the Clarification*, 33 Common Market Law Review 5, pp. 887-908

⁵⁷ Micklitz, H-W. (2002), *An expanded and systemized Community Consumer Law as alternative or complement?*, EBLR, 13 (6), pp. 583-598.



behavior of consumers in order to guarantee well-functioning (energy) markets.⁵⁸ Whether the normative concepts of the consumer in EU (energy) law and policy corresponds to the new active roles consumers can exercise in the energy markets is analyzed below:

3.2.1. *The definition of the consumer*

The definitions of the consumer vary across jurisdictions and across the different EU law Directives. It has often been questioned, whether the definition should be widely or narrowly construed.⁵⁹ The narrow notion defines consumers as natural persons acting for purposes outside their trade, business or profession.⁶⁰ The wider concept defines consumers as natural persons acting primarily outside their trade.⁶¹ The definition of the consumer is relevant as it provides who can rely on consumer protection rules and thus it represents the underlying regulatory model.

The CJEU (the Court of Justice of the European Union) has consistently held⁶² that the definition of the consumer should be narrowly interpreted. The Consumer Rights Directive also implemented a narrow definition in Article 2 (1).⁶³ However, the narrow definition is problematic in so-called mixed transactions or dual purpose contracts, where the contracting party acts both for professional and personal purposes, for example self-employed persons buy objects for both professional and personal use such as a computer.⁶⁴ While the CJEU first held that even a minor connection with a persons'

⁵⁸ Künneke (2008)

⁵⁹ Mańko, R. (2013), *The notion of 'consumer' in EU law*, Library of the European Parliament Briefing 130477REV1, available at http://www.europarl.europa.eu/RegData/bibliotheque/briefing/2013/130477/LDM_BRI%282013%29130477_REV1_EN.pdf;

Kingisepp, M., Värvi, A. (2011), *The Notion of Consumer in EU Consumer Acquis and the Consumer Rights Directive—a Significant Change of Paradigm?*, JURIDICA INTERNATIONAL XVIII/2011

⁶⁰ This definition can be found in the consumer sale, unfair terms, e-commerce, distance marketing of consumer financial services and payment services directives as well as in the new consumer credit directive. Council Directive 90/314/EEC of 13 June 1990 on package travel, package holidays and package tours (The Package Travel Directive) contains a broader notion extending the definition of the consumer to companies and business travelers as purchasers and users of travel services.

⁶¹ 'Any natural person who is acting primarily for purposes which are not related to his or her trade, business or profession'. Definitions are given in Annex 1, which is referred to in article I.-1:103 (1) of the Draft Common Frame of Reference (DCFR), available at http://ec.europa.eu/justice/contract/files/european-private-law_en.pdf

⁶² In *Di Pinto* the European Court of Justice interpreted, for the purposes of the Directive on doorstep selling, the notion of consumer in a narrower sense, noting that a trader canvassed with a view to the sale of his business is not to be regarded as a consumer protected by the directive and explained that the directive does not afford protection to legal persons even if they are in a position similar to that of a consumer. Case C-361/89 *Di Pinto* Judgment of 14 March 1991

⁶³ Directive 2011/83/EU of the European Parliament and of the Council of 25 October 2011 on consumer rights, amending Council Directive 93/13/EEC and Directive 1999/44/EC of the European Parliament and of the Council and repealing Council Directive 85/577/EEC and Directive 97/7/EC of the European Parliament and of the Council

⁶⁴ Tonner, K., Fangerow, K. (2012), *Directive 2011/83/EU on consumer rights: a new approach to European consumer law?*, EUVR 02/2012, pp.67 - 81



profession⁶⁵ excludes the transaction from the scope of the Doorstep Selling Directive's consumer protection rules, later in *Gruber*⁶⁶ the Court ruled that if the business purpose of the transaction was negligible in the overall context of the supply, the person could rely on consumer protection rules.⁶⁷ It is only the preamble to the Consumer Rights Directive that indicates that if the trade purpose 'is so limited as not to be predominant in the overall context', a dual-purpose transaction should count as a consumer contract.⁶⁸ Previously the Draft Common Frame of Reference (DCFR)⁶⁹ opted for a wider concept of consumer:⁷⁰

Accordingly, the DCFR (I.-1:106(1).) includes mixed transaction in the consumer protection rules if it is concluded 'primarily' for non-professional purposes. Additionally, if the same contracting party can be treated both as a trader and as a consumer, they may rely on the consumer protection rules *vis-à-vis* the other party who is a trader. However, this approach has not as yet been implemented in any binding EU instrument.

Mixed transactions are relevant for energy consumers, who may adopt various roles at the same time in the energy markets. Accordingly, the energy sector can illustrate the need for a wider notion of the consumer.

3.2.2. *The normative concept of the consumer: the average consumer*

First, it should be mentioned that EU consumer law is, in fact, often narrowly defined and is limited to contract law, which only reflects the nature of the role a consumer may adopt in a specific transaction but may not account for broader regulatory objectives the consumer should contribute to, such as energy efficiency.⁷¹ Second, while there are broader concepts that emerged in EU law such as the concept of consumer-citizen, which defines the consumer along various categories such as capable,

⁶⁵ C-45/96 *Bayerische Hypotheken* judgment of 17 March 1998

⁶⁶ Case C-464/01 *Gruber* judgment of 20 January 2005

⁶⁷ However, it stressed that the predominance of the private element is by itself irrelevant. According to the same ruling, a person cannot claim the status of consumer if they have negligently created the impression that they were acting in the course of a business (e.g. by using a company letterhead or address).

⁶⁸ Directive 2011/83/EU (n 65)

⁶⁹ In December 2007 the Draft Common Frame of Reference (DCFR), which has been prepared by academics, was published. The DCFR in many respects looks like a European Civil Code without family law, succession law and company law. It is clear that the Commission is not only proposing to improve the quality and structure of the present consumer acquis but at the same time it is aiming at the adoption of a 'single, simple set of rights and obligations Europe-wide', a horizontal instrument which in fact equals a European Code of consumer or contract law. The DCFR contains principles, definitions and model rules of European private law as distilled from the acquis communautaire of contract law and the private laws of the Member States. It covers both general contract law rules as well as specific ones such as rules of consumer contracts. DCFR is available at http://ec.europa.eu/justice/contract/files/european-private-law_en.pdf

⁷⁰ 'Any natural person who is acting primarily for purposes which are not related to his or her trade, business or profession'. Definitions are given in Annex 1, which is referred to in article I.-1:103 (1) of the DCFR (n 71)

⁷¹ Davies, J. (2011), *The European Consumer Citizen in Law and Policy*, Basingstoke: Palgrave Macmillan.

influential, confident and even vulnerable, this paper will focus on the average consumer as a concept of EU law.

The normative concept of the EU consumer developed in the CJEU's free movement case law. According to this jurisprudence EU law relies on the benchmark of an 'average consumer', who is a well-informed, reasonable and circumspect market actor. This concept puts the emphasis on consumers' ability to process and use information and therefore it has given preference to rules that require information disclosure instead of intervention in the market. The Court's perception was clearly expressed in a number of cases such as *Pall Corp*,⁷² *Clinique*,⁷³ *Mars*⁷⁴ and *Procureur de la Republique v. X*.⁷⁵ In these cases the Court has condemned national rules for alleged consumer protection as being over-regulatory and relied on the 'reasonably circumspect consumer' who is able to process information and make informed choices.⁷⁶ In these cases the Court defined the limits on the level of European consumer protection under Article 28 EC.⁷⁷ In *Gut Springheide* the Court explained that

'[...] in order to determine whether a particular description, trade mark, promotional description or statement is misleading, it is necessary to take into account the presumed expectations of an average consumer, who is reasonably well informed and reasonably observant and circumspect.'⁷⁸

The concept of the average consumer has two functions in EU law: it defines to what extent national consumer protection laws can restrict the EU free movement rules and it draws the borderline between the rights and duties of private parties in B2C transactions.⁷⁹ The average consumer is granted

⁷² Case C-238/89 *Pall Corp. v P. J. Dahlhausen & Co.* [1990], ECR I-4827

⁷³ In *Clinique* a German law prohibited the use of the name 'Clinique' on the grounds that it can mislead and confuse consumers so as to believe that it is a medical product and not a cosmetic one. The Court again found that the alleged consumer confusion did not justify the effects of the rule, namely the impediment on trade and the restriction of market communication. *Verband Sozialer Wettbewerb eV v. Clinique Laboratories SNC*, Case C-1315/92 [1994] ECR I-317

⁷⁴ *Verein gegen Unwesen in Handel und Gewerbe Köln eV v. Mars GmbH* Case C-470/93, [1995] ECR I-1923

⁷⁵ Case C-373/90 *Procureur de la Republique v. X* [1992] ECR I-131

⁷⁶ In *GB-INNO* the Court was not convinced that a Luxembourg law was protecting consumers against confusion by prohibiting special offers of reduced prices stating the duration of the offer and the specification of the previous price. The repression of consumer information in the interest of consumers was clearly rejected by the Court. In *Yves Rocher* the Court affirmed the relevance of market or product-related information and condemned a provision of the German law on unfair competition prohibiting individual price comparisons, except where these were eye-catching. The Court stated that '...the prohibition in question goes beyond the requirements of the objectives pursued, in that it affects advertising which is not at all misleading and contains prices actually charged, which can be of considerable use in that it enables the consumer to make his choice in full knowledge of the facts.' Case C C-126/91 *Schutzverband gegen Unwesen in der Wirtschaft v. Yves Rocher GmbH* [1993] ECR I-2361 para 17

⁷⁷ *Weatherhill* (1996) (n 58)

⁷⁸ Case C-210/96 *Gut Springenheide GmbH and Rudolf Tusky v Oberkreisdirektor des Kreises Steinfurt - Amt für Lebensmittelüberwachung* [1998] ECR I-4657, paras 31,32;

See also C-540/08 *Mediaprint Zeitungs- und Zeitschriftenverlag GmbH & Co. KG* [2010] ECR I para 103

⁷⁹ Mak, V. (2013), *The "Average Consumer" of EU Law in Domestic and European Litigation*, in: Leczykiewicz, D., Weatherill, S. (eds) (2013), *The Involvement of EU Law in Private Law Relationships*, Hart, Oxford, pp. 333-56



mandatory rights⁸⁰ in order to regulate markets and realise the EU's market integration goal. The CJEU developed a neo-liberal concept of the consumer by emphasizing consumers' own responsibility in markets and the beneficial working of market forces such as freedom of contract and competition. This model is based on the idea that consumers should be able to make informed choices rather than government regulation defining that choice.

Moreover, it should be added that this EU concept of the rational, empowered consumer can conflict with the more protective standard of the Member States.⁸¹ This has been acknowledged first in *Buet*, which was the first case in 1989 where the Court has considered different categories of consumers and made reference to vulnerable consumers.⁸²

The EU law concept of the average consumer has been challenged from different perspectives in the last decade. The impact of the economic and financial crises in 2008 increased consumers' exposure to financial risks and deteriorated consumer confidence and purchasing power. Furthermore, economic developments such as the widespread liberalization of certain sectors have significantly increased the amount and complexity of information consumers have to process when entering transactions in the global marketplace. As a reaction to these economic and social changes a new stream of economic theory has developed: behavioral economics challenges the concept of the rational consumer.⁸³

While neoclassical economics traditionally maintained the rational choice theory assuming that consumers are rational market players and they know best how to increase their welfare on the market, behavioural economics has challenged this theory. The empirical research from behavioural economics questioned both rational choice theory as a behavioural model and the legal regulatory framework of consumer protection: The behavioural economics insights into the decision making process of individuals prove that the predictions based on traditional rational choice theory often do not hold, as consumer decision making is affected by several biases and heuristics.⁸⁴ Empirical research also shows that consumers either do not use or only limitedly use the information at their disposal. The individual capacity for accepting and processing information can be emotionally controlled and as strongly influenced by environmental stimulants.⁸⁵ In view of these arguments, information disclosure, one of

⁸⁰ Micklitz (2002) (n 59)

⁸¹ Micklitz argues that EU consumer law is market bound, in national law it is social policy bound. See Micklitz (2002) (n 59); Mak (2013) (n 81)

⁸² Case 382/87 *Buet* [16 May 1989] See para 13 of the judgment

⁸³ A European Consumer Agenda - Boosting confidence and growth ... Consumer policy as an essential contribution to Europe 2020 COM(2012) 225 final

⁸⁴ Kahneman, D., Tversky, A. (1979), Prospect Theory: An Analysis of Decision under Risk, *Econometrica*, 47(2), pp. 263-292

⁸⁵ Kahneman, D. (2003), Maps of Bounded Rationality: Psychology for Behavioral Economics, *The American Economic Review*, 5(93), pp. 1449-1475;



the most preferred government interventions in consumer protection policy, needs to be reassessed in the light of behavioural biases.

3.3. Observations

This section could be concluded with the observation that the normative concept of the consumer, and namely the average consumer as formulated by the CJEU, corresponds to the earlier-described active consumer model, referring to the consumer who actively participates in markets. However, it does not correspond to the proactive consumer concept and it can also be questioned whether mandatory information disclosure creates a more informed bargaining environment and improves transparency. Therefore, there is clearly a regulatory disconnection present between the normative concept of the consumer as adopted in the European law and the various roles of consumers in the market as illustrated by the energy prosumers. The question of whether such disconnection is also present within European energy law is addressed in the following section.

Loewenstein, G.F. (2009), Emotions in Economic Theory and Economic Behavior, *The American Economic Review, Papers and Proceedings*, 2 (90), pp. 426-432.



4. THE CONSUMER IN EUROPEAN ENERGY LAW

Naturally, the current discussion would not be complete without the analysis of the European energy law. Both hard and soft law are regarded:

4.1. *Electricity Directives*

The First Electricity Directive⁸⁶ of 1996 did not provide a definition of the energy consumer but used the term 'customer' instead. The latter referred to 'wholesale or final customers of electricity and distribution companies',⁸⁷ and a final customer was 'a customer buying electricity for his own use'.⁸⁸ Household consumers would therefore fall under the definition of final customers. The concept of the consumer was that of a weak party.⁸⁹

The Second Electricity Directive⁹⁰ went further in defining the energy consumers. However, it still used the term 'customer' and defined final customers as 'customers purchasing electricity for their own use'.⁹¹ It also distinguished between household and non-household customers.⁹² Moreover, the Second Electricity Directive replaced the concept of the consumer as a weak party by the circumspect consumer concept.⁹³ It contained an Annex on the measures of consumer protection, which referred primarily to the provision of clear and accessible information- this means that the consumer as market player is adopted as leitmotif in the Second Electricity Directive.

⁸⁶ Directive 96/92/EC of the European Parliament and of the Council of 19 December 1996 concerning common rules for the internal market in electricity

⁸⁷ Directive 96/92/EC, Art. 2 (n 88), para 7

⁸⁸ Directive 96/92/EC, Art. 2 (n 88), para 9

⁸⁹ Directive 96/92/EC (n 88), Rec. 13 states that 'for some Member States the imposition of public service obligations may be necessary to ensure security of supply and consumer and environmental protection, which, in their view, free competition, left to itself, cannot necessarily guarantee', meaning that the consumer is a weak party needing protection, which would not take place in the absence of state intervention and therefore qualifies as market failure.

⁹⁰ Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC

⁹¹ Directive 2003/54/EC (n 92), Art. 2, para 9

⁹² Household customers are 'customers purchasing electricity for their own household consumption, excluding commercial or professional activities', whereas non-household customers include 'any natural or legal persons purchasing electricity which is not for their own household use and shall include producers and wholesale customers'. Directive 2003/54/EC (n 92), Art. 2, para 10-11

⁹³ This is illustrated, among others, in Recital 4 of the Directive, which states that 'the freedoms which the Treaty guarantees European citizens – free movement of goods, freedom to provide services and freedom of establishment – are only possible in a fully open market, which enables all consumers freely to choose their suppliers and all suppliers freely to deliver to their customers', and Recital 20, which declares that 'electricity customers should be able to choose their supplier freely'. Directive 2003/54/EC (n 92), Recitals 4 and 20



The Third Electricity Directive⁹⁴ (which is the latest one and currently in force) echoes the Second Directive in its definition of the individual consumers as household customers. Prosumers were not included in the scope of either the Energy Directives, which could be explained by the fact that technologies which allow prosuming consumption were not widely available in the 1990s or later in 2000s.

The Third Electricity Directive includes both provisions for empowering circumspect consumers, and statements indicative of the presence of responsible consumers within the Directive discourse. It contains provisions strengthening the existing rights of the consumers and with regard to consumer empowerment- this indicates a stronger position of consumers as market players.⁹⁵ Such provisions confirm the central role attributed to the access of energy consumers to information by the Directive. The transition to a different concept of the consumer is, however, less pronounced in this document in comparison to the previous Directive.

The objective of the Third Electricity Directive is the establishment of a competitive, secure and environmentally sustainable market.⁹⁶ This confirms the assumption that the European energy policy is broadening its scope as to include other aims besides competition and creation of internal market- for the realization of which responsible consumers are necessary.⁹⁷ The Directive obliges Member States to set up dispute settlements as well as creating an independent mechanism (energy ombudsman or consumer body) to deal with consumer complaints and out-of-court dispute settlements.⁹⁸ Annex I includes among others the obligation for electricity providers to set up transparent, simple and inexpensive procedures for dealing with their complaints. In particular, all consumers shall have the right to a good standard of service and complaint handling by their electricity service provider. These provisions contribute to the effectiveness of energy consumers' interaction with their market counter-

⁹⁴ Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC

⁹⁵ Recital 50 states that 'consumers should have access to their consumption data and associated prices and services costs so that they can invite competitors to make an offer based on those data', and that 'consumers should also have the right to be properly informed about their energy consumption'. Directive 2009/72/EC (n 96), Rec. 50; Moreover, the Directive indicates that 'clear and comprehensible information should be made available to consumers concerning their rights in relation to the energy sector'. Directive 2009/72/EC (n 96), Rec. 52; Similarly, Article 3 of the document states that the Member States 'shall ensure high levels of consumer protection, particularly with respect to transparency regarding contractual terms and conditions, general information and dispute settlement mechanisms'.

⁹⁶ Directive 2009/72/EC (n 96), Rec. 6

⁹⁷ Recital 1 of the Directive claims, in the same vein, that 'the internal market in electricity [...] aims to deliver real choice for all consumers of the European Union, be they citizens or businesses, new business opportunities and more cross-border trade, so as to achieve efficiency gains, competitive prices, and higher standards of service, and to contribute to security of supply and sustainability'. Directive 2009/72/EC (n 96), Rec. 1

⁹⁸ Directive 2009/72/EC (n 96), Art. 3, para. 12-13.



parts- the energy suppliers, and as such represent a part of the empowerment, applicable to consumers as market parties.

Furthermore, according to Article 3(9), electricity suppliers must specify to final consumers the contribution of each energy source of the overall fuel mix and must give information on the environmental impact. As a result, the consumer is able to take environmental values such as the use of renewable energy into consideration when 'regulating his own energy consumption'. Thus, the directive is an empowerment instrument in giving energy consumers the tools to take public concerns - environmental protection, climate change - into account when consuming. The consumer becomes responsible and the empowerment of the consumer relies heavily on providing sufficient information, which should enable consumer citizens to act responsibly. Thus, it could be said that the Directive expands the rights and possibilities of the active and the responsible energy consumers.

This analysis of the Electricity Directives leads to the conclusion that the dominant consumer concept has evolved from weak to active and to active/ responsible. At the same time, the concept of the consumer adopted in the Third Electricity Directive cannot be said to be that of the proactive consumer as the consumers are not encouraged to act as prosumers of energy on the market. More specifically, the Third Directive only refers to this possibility in its Annex⁹⁹ and not in the legislative body of the Directive. Therefore, it could be concluded that whereas the dominant concept of the consumer has indeed evolved, the most far-reaching interpretation of such concept (in the Third Electricity Directive) is still regarding the energy consumers as consuming rather than prosuming actors, as well as actors who are at the receiving end of market signals, as opposed to the sending end.¹⁰⁰

4.2. Energy Efficiency Directive

The Energy Efficiency Directive¹⁰¹ of 2012 has a more 'progressive' view on the energy consumers than the above discussed Directives. The Energy Efficiency Directive recognizes potentially active role of consumers in providing demand response as an important instrument for improving energy efficiency. Demand response significantly increases the opportunities for consumers to take action on consumption and billing information and thus provides a mechanism to reduce or shift consumption, resulting in

⁹⁹Annex on the measures of consumer protection, by stating that 'Member States shall ensure the implementation of intelligent metering systems that shall assist the active participation of consumers in the electricity supply market'. Directive 2009/72/EC (n 96), Annex

¹⁰⁰ Moreover, in the same Annex the Directive stipulates that 'at least 80 % of consumers shall be equipped with intelligent metering systems by 2020'. Directive 2009/72/EC (n 96), Annex

¹⁰¹ Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC

energy savings in both final consumption and, through the more optimal use of networks and generation assets, in energy generation, transmission and distribution.¹⁰²

The Directive recognizes that 'demand response can be based on final customers' responses to price signals or on building automation', and stipulates that 'network tariffs and regulations [should] incentivise improvements in energy efficiency and support dynamic pricing for demand response measures by final customers'.¹⁰³ The range of instruments and policies to promote behavioral change may include fiscal incentives for consumers, access to finance, grants or subsidies, information provision, exemplary projects, and workplace activities.¹⁰⁴

The above provisions illustrate that the concept of the consumer embraced by the Energy Efficiency Directive is that of the proactive consumer who actively engages in the provision of flexibility to the market. However, the Directive does not explicitly refer to prosumers, who actively produce flexibility and balancing services and trade them on the market, as opposed to responsible consumers who simply respond to the market signals such as variable prices. Therefore, the Energy Efficiency Directive is much more forward-looking compared to the Third Electricity Directive, but it does not fully provide for the prosuming consumption pattern.

4.3. *Soft Law*

The recent ACER's Conclusion Paper 'Energy Regulation: A Bridge to 2025',¹⁰⁵ published in September 2014 after a public consultation, takes a further step towards active and responsible market participation of the energy consumers, and, crucially, recognizes the potential of prosuming consumption.¹⁰⁶ In addition the ACER Consultation paper forecasts that 'consumers are likely, in many markets, to be charged on the basis of dynamic pricing for their consumption which will enable them to manage that consumption in ways which reduce their overall bill so that consumers can continue to receive reliable and affordable energy supplies when they require them'.¹⁰⁷ The document also contains

¹⁰² Directive 2012/27/EU (n 103), Rec. 4; Moreover, the Directive states that besides providing flexibility, energy consumers could play a role in the balancing: 'subject to technical constraints inherent in managing networks, Member States shall promote access to and participation of demand response in balancing, reserve and other system services markets'. Directive 2012/27/EU (n 103), Art. 15, para 8

¹⁰³ Directive 2012/27/EU (n 103), Rec. 45

¹⁰⁴ Directive 2012/27/EU (n 103), Art. 12, para 2a

¹⁰⁵ Energy Regulation: A Bridge to 2025. Conclusions Paper, ACER, Recommendation of the Agency on the regulatory response to the future challenges emerging from developments in the internal energy market, 19 September 2014

¹⁰⁶ Indeed, the paper accedes that 'consumers may own and operate generation capacity connected to their commercial or domestic premises', as well as that 'consumers will increasingly also be electricity producers'. Moreover, the paper presents the view that energy consumers are taking an increasingly important role on the market for energy services: 'smart technologies and new services will be available to manage the consumption of smaller customers (including domestic customers) in ways which may assist in, and reduce the cost of, network operation whilst also helping to reduce their own electricity bills'. Energy Regulation: A Bridge to 2025 (n 107)

¹⁰⁷ Energy Regulation: A Bridge to 2025 (n 107)



a number of suggestions regarding the empowerment of consumers,¹⁰⁸ which is a good indicator that the dominant concept of the consumer is that of the prosumer, as it refers to empowerment of not only consumers as market parties, but also consumers as citizens.

Another recent document is the Communication from the Commission on the Progress towards completing the Internal Energy Market,¹⁰⁹ published in October 2014, largely echoes the above-discussed ACER's Conclusion Paper. The Communication adopts the concept of the responsible consumer as dominant, and accepts that responsible consumers can also act as prosumers. Furthermore, the Communication recognizes that the energy consumers could play a role in the market services, besides producing the commodity, as 'well-functioning markets can [...] promote and reward flexibility and energy efficiency'.¹¹⁰ It also stipulates the importance of the variable market-based prices: 'if prices reflect the balance between supply and demand, and consumers benefit from the possibility to adjust their consumption patterns to price signals (demand response) the total cost of securing energy supplies can be lowered as the need for expensive peak generation and network capacity is reduced'.¹¹¹ This Communication provides a very progressive interpretation of the concept of the consumer, but it is merely a policy paper.

Much discussed recent Energy Union Package Communication from the Commission¹¹² released in February 2015 states that the proposed vision of the Energy Union is one 'with citizens at its core, where citizens take ownership of the energy transition, benefit from new technologies to reduce their bills, participate actively in the market, and where vulnerable consumers are protected'.¹¹³ This Communication acknowledges the role of the consumers in providing market services: for example, it states that it is essential to 'enable full participation of consumers in the market notably through demand response'.¹¹⁴ Moreover, the document recognizes the possibility of consumers acting as producers of energy by saying that 'smart technologies will help consumers and energy service companies working for them to reap the opportunities available on the energy market by taking control of their energy consumption (and possible self-production), [which] will deliver more flexibility in the

¹⁰⁸ Energy Regulation: A Bridge to 2025 (n 107)

¹⁰⁹ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Progress towards completing the Internal Energy Market, COM(2014) 634

¹¹⁰ Progress towards completing the Internal Energy Market (n 111)

¹¹¹ Progress towards completing the Internal Energy Market (n 111)

¹¹² Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, the Committee of the Regions and the European Investment Bank, Energy Union Package, COM(2015) 80 final

¹¹³ Energy Union Package (n 114)

¹¹⁴ Energy Union Package (n 114)



market and potentially reduce consumer bills'.¹¹⁵ Thus, the conclusion could be drawn that the dominant concept of the consumer adopted in this Communication is that of the prosumers actively participating in both energy production and consumption, and the provision of market services, such as flexibility.

However, simultaneously to the above statements contained in the Communication on the Energy Union Package, the document acknowledges that information provision is still the preferred empowerment instrument: For example, it says that 'we have to empower consumers through providing them with information, choice and through creating flexibility to manage demand as well as supply', as well as that consumers need to have 'understandable, readily-accessible information, user-friendly tools, and financial incentives for saving energy'.¹¹⁶ Therefore, it could be said the concept of prosumer evident in this document is not matched by the appropriate support measures.

This criticism of the Communication is echoed in the press release of CEDEC (a non-profit organization, representing the interests of more than 1500 local and regional energy companies),¹¹⁷ which states that despite promoting the vision of citizens at the core of the Energy Union, the Communication 'falls short of addressing in detail the role citizens and local actors, such as local energy companies, play today in Europe's energy system and addressing this role with targeted actions'.¹¹⁸ Indeed, despite the above discussed statements contained in the Communication, concrete steps and proposals regarding prosumers are not found in the document: as CEDEC chairman put it, 'citizens and local actors are only marginally addressed in the Communication'.¹¹⁹

4.4. Observations

We note that there is some discrepancy between the dominant concept of the consumer as adopted in the hard and in the soft EU energy law: The Electricity Directives illustrate an obvious evolution of the consumer concept from a weak party to active and responsible consumer. However the Third Directive remains rather 'conservative' and does not provide for the prosuming role. The Energy Efficiency Directive adopts a more progressive view on the possible role of the consumers, allowing the possibility that the consumers would also provide energy market services. However, this Directive also does not provide for the prosuming role of the consumers.

¹¹⁵ Energy Union Package (n 114)

¹¹⁶ Energy Union Package (n 114)

¹¹⁷ The communication on the Energy Union: Where is the role for citizens and local actors?, CEDEC Press Release - 25/02/2015

¹¹⁸ Where is the role for citizens and local actors? (n 119)

¹¹⁹ Where is the role for citizens and local actors? (n 119)



In contrast, the above discussed soft law documents present a rather far reaching concept of consumer, and namely that of the prosumer and provider of market flexibility and demand response. However, all these documents are merely policy documents. Thus, it could be stated that there is a far better connection between soft energy law and the possible market roles of the consumers compared to the connection between such roles and the hard EU energy law. However, whereas the policy documents indicate progress towards better regulatory connection, they all mention information provision to the consumers as the main empowerment instrument- as previously discussed, such approach is challenged by the behavioral economics, and might not be optimal to reach the empowerment goals.



5. CONCLUSIONS

In the evolving policy frameworks of market regulation consumers are to play an increasingly influential role. For the adequate functioning of markets a match is required between the normative concept of the consumer as adopted in the legal provisions, the underlying policy as well as the economic and technological roles for the consumers. However, they do not always have the corresponding legal rules which enable them to fully exercise their existing rights or even shape new ones. A well-functioning and technologically innovative market needs active responsible consumers who can exercise their purchasing power.

The problem this paper discussed was the possible gap between the legal framework and consumers' active role in the current regulatory architectures. If there is a disbalance between the possible roles consumers could fulfill in markets and the normative concept reflected in the relevant legal framework, this could potentially lead to the so-called 'challenge of regulatory connection'.

The goal of this paper was to critically analyze the concept of the regulatory consumer in EU law and policy. The regulatory consumer is the concept this paper used to describe consumers' new role in market regulation. The essence of this role is the active position consumers take in markets when they search for information, enter transactions and find remedies. The paper examined various degrees of such activism through the example of the energy consumer. An active consumer may be reactive but s/he can also act proactively. A specific category of energy consumers are prosumers. Prosumers also produce goods and services in markets, moreover, when doing so they may even further innovation- this is user-centered innovation.

The paper aimed at answering the question how the regulatory consumer is perceived in EU law and policy and more specifically, how the normative concept of the consumer in EU law relates to the possible roles of the energy consumers on the energy market and to which extent is it possible for the energy consumers to act as prosumers under the European respective framework.

The paper looked at the existing typology of the consumers in EU law, which has mainly developed in cases on free movement rules. This dominant concept of the circumspect, responsible consumer is, in fact, in line with active role envisaged for consumers in the new regulatory architecture. Even though the EU has expressed in its various policy documents a further move towards the empowered consumer, this concept does not encompass the proactive role of prosumers. Moreover, the mere regulatory tool of information provision as a tool of empowerment also falls short of a real enabling device for active or even proactive consumers as insights from behavioural economics.

The paper proposed the following central hypothesis: whereas the European energy policy evolved similarly to the European consumer policy from the concept of consumer as a weak party to that as an



active party, and then as a responsible party, it did not (yet) evolve as far as to encompass prosumers, as the far-reaching format of responsible energy consumption.

With regard to EU law considering the role of energy consumer the following conclusions can be drawn: The various Electricity Directives that shaped EU energy law in the last two decades displayed an evolution of the concept of the consumer, from a weak party to an active market party with elements of consumer-citizenship. Still, the concept of the prosumers is not present in any of the Directives. A shift to a more proactive role of the consumer is present the Energy Efficiency Directive. The Energy Efficiency Directive recognizes the role of the consumer regarding the provision of flexibility to the market in response to market demand and proper incentives, but does not fully encompass prosuming consumption, as it does not explicitly refer to prosumers, who actively produce flexibility and balancing services and trade them on the market, as opposed to responsible consumers who simply respond to the market signals such as variable prices. The ACER's paper and the Commission's Communications are all three non-binding soft law instruments, but they represent a very progressive interpretation of the concept of the consumer: the prosumer who engages in energy market by prosuming both electricity and flexibility, and actively trading them on the market.

The overall conclusion of the paper is that EU law and specifically EU energy law has not yet adopted an appropriate and sufficiently encompassing concept of the (pro)active consumer. This role is, however, technically and economically already available to consumers in the energy market. This creates a gap between the existing law on the one hand, the policy advocating the active consumer role, but even more importantly between the economic and technological reality which remains ineffective for consumers due to the absence of the corresponding legal provisions. Moreover, as consumer may not be able to proactively act in energy markets user-centered innovation may not be realized and thus technological innovation lags behind.



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