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Diestelmeier, Lea; Cappelli, Viola

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Conceptualizing 'Energy Sharing' as an Activity of 'Energy Communities' under EU Law: Towards Social Benefits for Consumers?

Lea Diestelmeier and Viola Cappelli *

The Electricity Market Directive and the Renewable Energy Directive introduced 'energy sharing' as a novel activity of energy communities, but they do not further specify what 'sharing' entails. This article aims to clarify the meaning of 'energy sharing' for consumers in the context of 'energy communities'. Due to their distinctive governance structure and purpose, as established by the Directives, 'energy communities' can potentially contribute to facilitating energy democracy and energy justice at the consumer level, by setting the relevant context for interpreting 'energy sharing'. This implies that from a legal perspective 'energy sharing' needs to be understood beyond the paradigm of the sharing economy, but as a cultural trait. So far, provisions regarding 'energy communities' and energy sharing have not been (sufficiently) implemented by many EU Member States. There is a need for clarification and guidance of what those concepts entail, in particular their potential for operationalising energy democracy and energy justice at consumer level. This article proposes a conceptual framework for further investigating the question how 'energy sharing' should be defined and operationalised in the EU but also at national levels.

I. Introduction

The term 'energy sharing' was introduced for the first time in EU energy legislation under the *Clean Energy for All Europeans* package (CEP) which was adopted in 2018/19.1 The Directive on the promotion of renewable energy sources ('Renewable Energy Directive') and the Directive on the internal market for electricity ('Electricity Market Directive') establish that 'energy communities' have to be able to *"share energy*

within the community".2 While it seems that the term has been deliberately introduced as a new activity, the Directives provide little guidance about what it could mean.3 Traditionally, EU energy legislation refers to the 'supply' of energy4 to consumers which is carried out by an eligible supply company5 subject to strict conditions, typically encompassed in a licence.6 In the course of the liberalisation of the EU energy sector, supply was established as a competitive market activity with the aim to allow consumers to freely choose their supplier and vice versa, suppliers to freely deliver to their customers. This being said, alternative ways to provide energy to final consumers emerged in the context of the energy transition and include self-consumption, collective self-consumption (CSC), or even peer-to-peer trade (P2P). Self-consumption entails that consumers produce energy, typically electricity, for their own consumption. Often, the production installation is then located 'behind the metering point' of the consumer, on their own premises. CSC describes the situation when several consumers produce energy together, i. e. 'collectively'. Again, this could be behind one metering point, but possibly also beyond their premises, as a joint investment in production capacity where the shares are allocated to individual consumers and account for 'self-consumption'. P2P trade emerged most recently and describes the situation when several peers (consumers with production facilities) provide electricity to each other based on automated transactions subject to a contract with predetermined conditions.7 Whether, or to which extent, P2P trade is actually

implemented is debatable. Yet, it is increasingly mentioned in the literature[8] but also legislation.[9] The term 'sharing' in the context of providing energy, however, is new. From a legal perspective it is relevant to explore what the activity of 'energy sharing' entails vis-à-vis supply, but also vis-à-vis CSC and P2P.[10] Beyond the mere distinction towards other concepts of energy provision, it is relevant and necessary to explore the meaning of 'energy sharing' as a task of 'energy communities' as newly introduced actors, at least in EU law, under the CEP.[11] The two core features which distinguish 'energy communities' from conventional production and supply undertakings relate to their purpose, which is to provide benefits to the community, and their governance model, based on bottom-up participation. We argue that both features are essential for understanding 'sharing' as an activity carried out by energy communities.

Gaining a clear understanding of what energy communities are (or what we, as society, want them to be) is necessary for defining the purpose of their activities, and thus also 'energy sharing'. Based on this reasoning, the methodology for researching what 'energy sharing within energy communities' should mean from a legal perspective, starts by identifying the relevant concepts underlying energy communities (Section 2) and using them as a lens for analysing the EU legal provisions on energy communities (Section 3). This sets the framework in which 'energy sharing' should be implemented. Drawing on a multidisciplinary literature review of social science, economics, and law, the different meanings of 'sharing practices' are identified and assessed against the background of energy communities (Section 4). This allows further distinguishing 'energy sharing' from CSC and P2P trade as defined by EU law and analysing examples of how Member States implemented and operationalised 'energy sharing' at the national level (Section 5). Answering the question of what 'energy sharing within energy communities' should mean from a legal perspective also requires an interpretation of the recitals of the Electricity Market Directive and the Renewable Energy Directive on the purpose of energy communities (Section 6). Finally, this article concludes by reflecting on whether 'energy sharing' should be further developed and legally established to form the basis of a common understanding in order to make it a meaningful tool for a democratic and just energy transition at the consumer level (Section 7).

II. The Underlying Concepts of Energy Communities

By and large, energy communities can be understood as alternative forms for organising activities in the energy sector in comparison to conventional actors. Despite the fact that energy communities have only recently been defined in legal terms,[12] they are nothing new and have existed for decades in Europe.[13] At their origins are energy democracy and energy autonomy concerns of people who wanted to gain greater independence from large energy supply companies with a fossil fuel portfolio by creating local ownership of renewable energy production.[14] To understand energy communities conceptually, asking 'what is distinctive about energy communities', Walker and Devine-Wright developed a comprehensive and well-established classification essentially including two key dimensions: a process dimension determining who is involved and who exercises influence; and an outcome dimension determining how outcomes of an energy community are spatially and socially distributed.[15] The 'process dimension' ranges from 'closed and institutional' to 'open and participatory' and the 'outcome dimension' ranges from 'distant and private' to 'local and collective'. According to Walker and Devine-Wright, an ideal energy community would

thus be open and participatory and generate local and collective benefits. However, they also note that for other stakeholders, either one of the dimensions might be more relevant. Thus, there is not just one fixed concept, yet, the two dimensions are determining elements of the classification.[16]

Importantly, this classification indicates that it is not about a specific technology, but about the social arrangements through which a technology is implemented and made useful for a specific purpose.[17] Energy communities have, for the first time, been included in EU legislation under the CEP in 2018 and 2019. Setting a general framework, the EU legal provisions leave a considerable degree of discretion to the Member States in the implementation. While this is not per se problematic, it is necessary to thoroughly think about which role energy communities *should* take in the energy sector and how this is operationalised in (national) legal provisions, especially concerning the 'social arrangements' including potentially 'energy sharing', rather than support for specific technologies.[18]

The two distinctive elements of energy communities vis-à-vis conventional supply and distribution companies (i. e. the process dimension and the outcome dimension) can be linked to and further explained by the concepts of energy justice, and relatedly a just energy transition, (outcome dimension) and energy democracy (process dimension). Energy justice and energy democracy are guiding concepts in the discussion of *"who gets what, and the processes and procedures that govern how we decide the principles of that distribution"*.[19] Both concepts cannot (and should not) be pinpointed by a universally valid definition and can better be understood as pieces of the puzzle of ideas on how to organise the energy transition beyond technical and economic challenges by including socio-political and legal questions.[20]

Sovacool et al. capture the concept of energy justice by describing the energy system with attributes of 'fair dissemination of benefits and costs of energy services' and 'representative and impartial energy decision-making'.[21] Both aspects again relate to the 'outcome' and the 'process' dimension. The authors further ground energy justice on eight central principles that represent the goals that energy justice, as a concept, seeks to achieve: availability, affordability, due process, good governance, prudence, intergenerational equity, and responsibility. Arguably, the concept of energy justice becomes more prominent in the context of the energy transition where the shift from fossil fuels to renewable energy sources presents the opportunity to also re-organise control over energy resources and participatory processes in harnessing them. Yet, a low-carbon based energy sector does not per se imply a just energy sector.[22] In an extensive analysis of case law from around the world, Heffron investigated how energy justice is currently implemented in the context of the energy transition. This author finds that human rights are increasingly applied to different energy activities in the energy life cycle, operationalising energy justice.[23] Energy democracy can be seen as one of the most radical concepts in the context of the energy transition beyond a transition of fuels, but also organisational structures of the sector.[24] Its origins can be traced to social movements and activists calling for a reorganisation of the energy sector. Szulecki highlights that this goes beyond public participation procedures in the current organisation, but questions more fundamentally existing economic and power structures governing the entire supply chain of energy.[25]

While all three concepts, energy justice, just energy transition, and energy democracy, are broad, partly overlap, and cannot be captured by single definitions, they do provide important understandings of how energy sectors can be organised and which values are relevant in this reorganisation. In the context of energy communities, those concepts have a twofold meaning: first they could be (partly) operationalised by energy communities and secondly, they also inform and remind us what energy communities are or should be, vis-à-vis conventional undertakings in the

sector. The following section outlines whether and how these concepts are reflected in the EU legal framework on energy communities.

III. Energy Communities under EU Legislation: Key Differences with Traditional Energy Companies

EU legislation adopted under the CEP established two definitions of energy communities, i. e. 'renewable energy communities' (RECs) and 'citizen energy communities' (CECs).[26] The main differences between them are that RECs are limited to the production of renewable energy sources and that members and shareholders have to be located in the close-proximity of the project. CECs are limited because they may not include medium-sized enterprises, although, they may potentially carry out more activities, such as distribution. Both entities have to be allowed to 'share energy within the community'. The fact that the term 'sharing' is mentioned in two different directives indicates its potential relevance for energy communities. The two dimensions distinguishing energy communities from conventional companies mentioned in the introduction (the process dimension and the outcome dimension) can also be identified in EU legislation on energy communities, namely by the provisions establishing the governance and the purposes of energy communities.

The *governance* of energy communities is established on horizontal participation (e. g. citizens, local municipalities, small enterprises) in activities related to energy,[27] and it aims at realising, at least in part, the idea of energy democracy.[28] This is implemented by three interrelated main aspects in EU legislation. First, energy communities have to be based on *open and voluntary participation*. Openness concerns the access to energy communities, which should be inspired by objective, transparent and non-discriminatory criteria.[29] Voluntariness involves the possibility for members and stakeholders to freely decide to

participate, but also to leave the community, according to the contractual conditions of the participation agreement. Second, the governance requirements integrate *per se* the democratic nature of energy communities, as both Directives require that the *effective control is exercised through the shareholders or members* of the energy community.[30] To shield energy communities from being taken over by large commercial entities, and subsequently maintaining the conditions for a democratic internal governance structure, the Directives limit the categories of actors eligible to participate in energy communities to small enterprises in CEC and small and medium-sized enterprises in REC. Third, *local ownership of assets* to, for instance, generate, distribute, and/or supply energy allows participants to independently govern their relationships as active part of an entity they have jointly established. Involvement through ownership of energy assets is one of the core themes under the CEP and seen as a way to further empower consumers in the energy transition.[31]

The other distinguishing element of energy communities vis-à-vis traditional energy companies concerns their *purposes*. In fact, EU legislation requires that energy communities create *'environmental, economic, or social community benefits'* (rather than financial profits).[32] Providing such benefits contributes to fostering a just energy transition since it ensures the dissemination of resources, costs, and burdens based not on market logic but on social values close to the principles of affordability, availability, and social equity that compose, *ex multis*, the idea of energy justice. Yet, the prohibition from adopting a commercial motive does not exclude that energy communities can make profits, but implies that profits are reinvested into the community's activities or to pursue public interests related to the community.[33] Generally, the model of traditional cooperatives abstractly fits with the idea of energy communities insofar as it has the same *ratio* based on the

exchange of mutual benefits. In the specific sector-based context economic benefits may be related to the financial redistribution of profits resulting from the activities carried out in the community between the community itself as an entity or its members. These benefits could possibly be investments in public (within the community) infrastructures, reduced energy bills for members, promotion of local economic and technological development.[34] Environmental benefits can result from the production of energy on the basis of renewable energy sources and consequently the reduction of emissions or other polluting or hazardous effects of energy production on the basis of fossil sources. Other, more indirect, environmental benefits could include anything that the community itself values in environmental terms and aims at protecting and preserving by means of the community. Social benefits include all advantages related to the general welfare of the community, its members, but possibly also the area where the community is established, following the principles of solidarity and inclusiveness. Probably, the content of this category is the vaguest, and at the same time the one which is crucial for establishing a community based on mutual trust in the first place. This article thus argues that 'energy sharing' should be understood as a social benefit element of energy communities, and in fact, needs to become an essential part of them.

Energy communities are different from conventional production and supply companies in the energy sector. They could potentially further operationalise energy democracy through empowerment and participation and energy justice by striving for community benefits. Yet, for this to happen, the legal framework of the energy sector has to acknowledge and facilitate their lasting existence, not only as an exemption, but as an integral part of how energy production, distribution and supply is organised. With the EU law provision on energy communities Member States have to develop or at least revise their laws on energy communities.

IV. 'Sharing', 'Sharing Economy', 'Sharing Culture' and the Law

EU legislation allows for a broad variety of activities which may be carried out by energy communities. The Electricity Market Directive seems to include a non-exhaustive list of potential activities for CEC including generation, distribution, supply, consumption, aggregation, energy storage, energy efficiency services, and charging services for electric vehicles.[35] The list of activities for RECs is slightly more limited and includes production, consumption, storage, and sale of renewable energy.[36] Remarkably, both Directives introduce *'energy sharing within the community'* as a new activity. The Directives require that the Member States need to ensure that energy communities can *share* energy produced by their owned production units within communities.[37] What this activity exactly entails and how it could be implemented remains, however, unanswered by the Directives.

Even though the term 'sharing' is broadly known and applied in plenty of practices in everyday life, capturing this concept in one universally valid definition, which is a crucial step to give it legal effect and impact, is yet complex.[38] For example, sharing could mean to take part in something together, to divide something between two or more people, to give something you have to someone else, or to allow someone else to use something of yours. Sharing can also refer to having similar feelings, ideas, or experiences, or to have equal part or responsibility in something, for example an enterprise, activity or property. The practice of sharing is probably as old as humankind, but in recent decades the concept revived with the idea of using existing resources, which are partly left idle, more efficiently in conjunction with the maturing of new technologies, i. e. the internet and (social) digital platforms, which allow extending the circle of the sharing peer community beyond the trusted personal social network.[39] In this context, the term 'sharing economy' emerged, which can, by and large, be understood as 'consumers granting each other

temporary access to under-utilised physical assets ('idle capacity'), possibly for money.'[40] Another understanding adds further attributes, by defining

'sharing economy' as facilitating 'community ownership, localised production, sharing, cooperation, small-scale enterprise, and the regeneration of economic and natural abundance.'[41] Critique levelled against the concept of the sharing economy argues that it narrowly focuses on 'economic transactions of a sharing 'on-demand' economy'[42] while sharing practices entail more and can better be described as '[…] social networks between diverse stakeholders whose main goal is to co-produce, manage, and share, resources, time, services, knowledge, information, and support based on solidarity and reciprocity rather than economic profit.'[43] Accordingly, the goal would be to improve sustainability, innovation, and social interactions by using regional resources for daily needs.[44] 'Sharing culture' is the term describing this extended view on sharing practices, which emphasises that "[there are not only] *many communal assets;* [but] *there is the local relational asset of having a rich culture to draw on and to use for support".*[45]

The distinction between the understanding of sharing as an economic activity or as a cultural trait has relevant implications from a legal perspective. 'Sharing economy' can be understood through the contract law lens as something connected to the regulation of property relationships between private actors, whereas 'sharing culture' seems something that escapes the rationale behind contract law in commercial contexts, distant from the idea of reciprocal exchanges of assets and the pursuit of mere self-interest typical of the vast majority of contracts. In fact, conceptualising sharing in the sense of the sharing economy is innovative, as it raises the crucial issue of disintermediation in market contexts traditionally governed by centralised operators. Nevertheless, it does not fundamentally disrupt the current contractual law framework, as it essentially concerns reciprocal commodity exchanges and fits perfectly into the principle of freedom of contract. The recent popularity of and attention to the concept of 'sharing economy' does in fact not so much stem from the shared commodities and the legal modes of exchanges, but on the possibility consumers have to interact directly through digital platforms, beyond the business-to-consumer practice.[46] Despite the horizontal nature of these interactions, they remain contractual agreements in the pursuit of the preeminent economic interest of parties. This does not mean that the sharing economy business model does not pose relevant legal challenges, in particular for consumer and competition law[47], but also for business-to-business transactions.[48] It simply means that the activity of sharing, according to this understanding, largely corresponds to the one of exchanging or trading goods or services. The theoretical and legal framework in which these initiatives take place is the traditional ordo liberal market, driven by maximising profits. Consumers (or users) can economically profit from their reciprocal interactions in sharing economy contexts, but the true winner of those transactions is usually a third party facilitating the transaction, for example the platform provider.[49] In other words, the action of market actors in the sharing economy is driven by the same individual and financial reasons moving the traditional economy.[50] By contrast, defining sharing in terms of 'sharing culture' is more complex from a legal perspective. This concept is not related to the logic of reciprocity at the basis of contractual relationships taking place in the market but, at the same time, is something different from gift-giving.[51] People who share have a personal interest in doing so, but this interest is not mainly related to economic reasons, but rather to a sense of community and solidarity.[52] While there is a common interest that can result in a personal advantage, the main aim of the sharing practice is to support other people or a cause. The rationale of the 'sharing culture' is thus distinct from the traditional market logic and regulation.

Implementing and operationalising the idea of 'sharing culture' in the existing market economy is complex and would at least require an exceptional form or exempted space along the lines of 'cooperatives' already pre-existing in national law. Possibly, 'sharing cultures' in the energy sector could thrive in a similar way.

This brief overview of terminology and legal issues related to the concept of sharing shows that implementing the provisions of the EU Directives on 'sharing energy within energy communities' is anything but straightforward. Expectedly, it becomes even more complex when taking into account the physical peculiarities of the energy sector and the individual dependence on reliable and secure access to the resource. The next section firstly analyses the activity of sharing more closely in the context of the Directives and, secondly, identifies whether and how this concept has been implemented by the Member States.

V. 'Energy Sharing within Energy Communities': EU Legislation and Examples of National Transpositions

Both Directives identically mention that Member States have to

"[…] ensure that [renewable/citizen] *energy communities are entitled to arrange within the* [renewable/citizen] *energy community the sharing of* [renewable energy/electricity] *that is produced by the production units owned by the community, subject to other requirements laid down in this Article and subject to the community members retaining their rights and obligations as final customers"*.

The Directives do not further elaborate on the exact activity of 'energy sharing', but some more information can be found in recital 46 of the Electricity Market Directive:

"Where electricity is shared, the sharing should not affect the collection of network charges, tariffs and levies related to electricity flows. The sharing should be facilitated in accor-

dance with the obligations and correct timeframes for balancing, metering and settlement".

The following is thus explicitly established about the activity of 'energy sharing': sharing must be conducted in the context of energy communities; sharing must be conducted without prejudice for the legal protection of customers; energy communities must not be subject to regulatory discrimination when they share electricity; and this practice should not alter network tariffs. Yet, this remains rather technical and does not further clarify what the activity of energy sharing is and how it could be operationalised. Analysing energy sharing against the background of existing alternative forms of (self) providing energy allows identifying overlaps, but also identifying aspects which are not covered and considered to be part of 'sharing'.

1. 'Energy sharing' in relation to Peer-to-Peer Trading and Collective Self-Consumption

The Directives mention 'sharing' as an explicit activity next to 'supply' in the context of energy communities leading to the inference that 'sharing' is something other than the 'supply' of energy. The Directives also explicitly state that energy sharing can only be so far possible as it would not negatively affect the rights of consumers, in particular, the rights of household customers (and potentially small and medium-sized enterprises, SMEs). One of the most fundamental rights of consumers is to enjoy 'universal service', namely the right to be supplied with electricity of a specified quality within their territory, at competitive, easily and clearly comparable, transparent and non-discriminatory prices'.[53] Sharing can thus not be an alternative to the 'supply' of energy,

at least not for small customers (households and SMEs). Nevertheless, potentially, 'sharing energy' might complement the regular supply of energy. This section explores whether and to which extent 'energy sharing' overlaps with (more or less) established alternative forms of energy provision which exist alongside the regular supply of energy, namely peer-to-peer trading (P2P) and collective self-consumption (CSC). Both forms are at least partly explained in the Directives and often mentioned in the context of 'prosumers' and energy communities because they facilitate exchanging energy and/or consuming self-produced energy and thereby facilitate a certain degree of independence from traditional production and supply companies. It is unclear, however, whether and how those concepts are related to 'energy sharing'.

P2P trading is referred to and defined only in the Renewable Energy Directive, namely as *"the sale of renewable energy between market participants by means of a contract with pre-determined conditions governing the automated execution and settlement of the transaction"*.[54] P2P trading is thus a particular way for the sale of energy between 'peers', meaning that no (professional) intermediate party is facilitating the trade, such as for example an eligible supply company. Also the peers have to be non-professional actors.[55] According to the European Commission, the notion of P2P indicates a new modality for energy supply, taking place directly between peers (which can be producers, consumers or 'prosumers') and is enabled by technologies cancelling out the need for traditional intermediation.[56] Sometimes it is assumed that energy can be 'shared' via P2P trading in the context of energy communities, meaning that the members of the community (the peers) supplement each other with energy and jointly suffice the demand of the community.[57] However, the definition of P2P trade seems to imply something else than a 'joint effort to satisfy community demand'. First of all, it is defined as P2P *trade* which clearly implies a commercial transaction. The particularity of this commercial transaction is the absence of a professional intermediate party, usually the energy supply company in the energy sector. While the fact that P2P trade is a commercial transaction does not *per se* preclude that it is some form of sharing (at least in the sense of 'sharing economy' as outlined in Section 4), this seems to follow a narrow understanding of 'sharing'. Looking for overlap between the two concepts, the only common feature appears to be the absence of an intermediate professional party, which can be assumed to be also the case for sharing taking place among 'peers'.

In contrast to P2P trading which entails individual action by 'peers' engaging in commercial transactions, CSC is based on *joint* action, as the name includes some form of collectivism.[58] Self-consumption means that energy that is produced by a person is consumed by that person. CSC describes the situation where several persons are engaged in the production and the consumption of energy. This does not necessarily need to take place behind the same metering point, meaning that the collective aspect is not necessarily confined to a specific site, depending on the exact regulation of CSC. For example, several persons could invest in a production installation outside of their premises and, according to their share in the investment, offset the production with their consumption.[59] The Directives refer to CSC in this context by mentioning it as a possible joint action of 'active customers' and 'jointly acting renewables self-consumers'.[60] 'Active customers' and 'renewable self-consumers' are, so to say, the institutionalised 'prosumers'.[61] This type of consumer would not only be empowered in the liberalised energy market to exercise a right of choosing their supplier, but also to, for example, produce, sell, and store energy according to market signals. In this way, ideally, customers could become more independent from supply companies and reap the benefits of fluctuating prices and contribute to the overall aim of increasing the share of renewable energy sources in consumption. In the words of the EU Commission, *"they could become owners of the energy transition"*, possibly also in collective form.[62] CSC appears to be more closely related to the concepts of energy communities and perhaps 'energy sharing' than

P2P which is in fact a novel form of commercial transactions at the consumer level, as it involves a collective element. Yet, a closer look at CSC suggests that it is not interchangeable with 'energy sharing'. CSC requires customers to become 'active' or at least produce energy themselves (self-consumption implies also self-production) and establish some sort of agreement on how to allocate the self-produced energy to the individuals of the collective. 'Energy sharing', assumingly, does not necessarily imply contractual reciprocity, and participants of the energy community could benefit from the shared energy precisely for the mere fact that they participate in the community, even though they did not contribute to the production.

'Energy sharing' does not seem to fit with existing (alternative) forms of energy provision, such as regular supply, P2P and CSC. The two common aspects are that no intermediate entity is involved (such as in P2P trade) and that it involves a collective element (such as in CSC). However, similarities seem to be outweighed by the differences, the focus on commercial transactions and the condition that consumers would need to actively contribute to production. This confirms the assumption that 'energy sharing' is indeed a new activity which deserves to be further designed and operationalised in order to be embedded in the European legal framework. Whether and how Member States already did so in the implementation process of the Directives is explored in the following section.

2. Energy Communities and 'Energy Sharing': Examples of National Implementations

While the deadline of the transposition of both Directives (Renewable Energy Directive and the Electricity Market Directive) passed already,[63] many Member States have not yet fully implemented all provisions. In particular, the implementation of the provisions on energy communities seem to lack behind in many Member States or be insufficient.[64] Despite these shortcomings, it is relevant to explore whether and how Member States implemented the requirement that energy communities have to be able to 'share energy within the community'. This section highlights some examples of national legislation. It does not provide an exhaustive discussion of how Member States transposed the provisions on energy communities and possibly 'energy sharing' in national law, but aims to provide examples of whether and how those aspects have been taken into account by the national legislatures. The choice of the Member States presented here has been made on the basis of the status of the transposition of energy community provisions as assessed by the umbrella organisation for energy communities on EU level 'REScoop'. On their website they present a 'transposition tracker' which indicates the status of the transposition on the basis of a set of qualitative criteria.[65] We chose countries which are indicated as 'good practice' (Italy and Germany) and 'average progress' (the Netherlands), on the assumption that 'energy sharing' is more likely to be taken into account and autonomously implemented in States where the process of transposition is at a medium to advanced stage. No country has yet been labelled with the indicator 'best practice'. Labels used to indicate transposition processes at an early stage are marked as having 'substantial deficiencies' and being classed as 'bad transposition'.

Italy has transposed the Directives' norms concerning REC and CEC with great care. The implementing legislative decrees 199/2021[66] and 210/2021[67] refer to many of the criteria for the governance of communities contained in the Directives, including autonomy, voluntary membership, effective control, clearly stating that the main aim of the community is to bring environmental, social and economic benefits at the local level instead of generating financial profits. Both decrees also explicitly promote inclusiveness by mentioning that participation in communities

should be open to low-income or vulnerable households. Despite the high level of precision in the implementation of the Directives (for instance, clear criteria define the eligibility conditions for personal and legal subjects that want to participate in communities), there is no autonomous elaboration on what the activity of sharing implies in legal terms, and, as a result, this concept remains undefined in national law.

The German legislature adopted amendments to the Energy Industry Act (Energiewirtschaftsgesetz) for transposing the Electricity Market Directive in July 2021.[68] This amendment does not include a specific reference or transposition of the provisions on CEC or REC. Although not specifically referred to as energy communities, German law provides for citizen energy initiatives. The current legal framework governing citizen energy initiatives ('Bürgerenergiegesellschaften') is based on the general Act on Cooperatives (Genossenschaftsgesetz – GenG) and the Renewable Energy Act (Erneuerbare-Energien-Gesetz – EEG). Despite the existence of these provisions, stakeholders[69] voiced serious doubts and argued that these insufficiently implement the concept of CEC and REC. In the summer 2021, the union for citizen energy ('Bündnis Bürgerenergie') filed a complaint to the EU Commission against Germany for not transposing the concept of REC sufficiently[70] based on several assessments.[71] The concept of CEC has also not been further taken up by the German legislature and is not explicitly implemented in the national legal framework. It can be assumed that the German legislature considered the existing legal framework on 'Bürgerenergiegesellschaften' as adequately implementing RECs and CECs. However, following the complaint of the stakeholder group to the EU Commission, the RECs definition has finally been transposed in July 2022 (Gesetz zu Sofortmaßnahmen für einen beschleunigten Ausbau der erneuerbaren Energien und weiteren Maßnahmen im Stromsektor) through amendments to the regulation of 'Bürgerenergiegesellschaften' under the Renewable Energy Act. It remains unclear if CECs can be considered as transposed under the umbrella of the 'citizen energy initiatives'. Also, 'energy sharing' is not addressed.

The Dutch legal framework governing the energy sector is currently under major review, amongst others, due the need to transpose the Electricity Market Directive and the Renewable Energy Directive, including the provisions on citizen and renewable energy communities. In addition, the aim is to integrate the national Electricity Act and Gas Act (Elektriciteitswet en Gaswet) into one overarching Energy Act. As the new Energy Act has not yet been adopted, this analysis is based on the proposal for the new Energy Act (latest version July

2022).[72] The proposal for the new Energy Act (Energiewet) only includes one definition of energy communities (in Dutch 'energiegemeenschap'), which aims at incorporating both: CEC and REC.[73] The definition does not explicitly define the potential activities that energy communities may carry out. This is in line with the general approach of the proposal for the new Energy Act to focus on market activities rather than individual actors. The reason for this is that, in principle, the assumption is that who exercises a specific activity is irrelevant, i. e. *"if a final customer buys electricity from a traditional supply company, an energy community, or from his/her neighbour who has a surplus of electricity generated on the basis of solar energy, in all cases electricity is supplied, so the requirements for supply are applicable".*[74] The proposal for the new Energy Act allows for deviations from the general rule that only licensed supply companies are entitled to supply small (household) customers for the case that energy communities wish to supply energy to their members. This is subject to the conditions that the energy community does not supply more

energy than was produced by its production installations, the persons supplied have to be members or shareholders of the energy community, and the energy community has a maximum of members and shareholders to be determined by a Ministerial decree.[75] The question is, whether the option for energy communities to supply without a licence to their members sufficiently transposes the obligation that energy communities have to be able to share energy.

Those examples illustrate that the transposition process of relevant EU legislation on energy communities is not completed yet and the concept of sharing is not particularly addressed and developed in national legislation.[76] If energy communities should indeed constitute an alternative organisational form to conventional production and supply companies in terms of governance and distribution of costs and benefits, the activity of 'energy sharing' needs to be further developed and articulated in law. The following section aims to make a first step in this exercise.

VI. 'Energy Sharing within Energy Communities': Operationalising the 'Social Benefit' Requirement under EU Law

Member States are required to ensure that energy communities can share energy within the community which would, as a precondition, require them to answer the question of what sharing could or should mean and how it can be implemented. Also, existing concepts, such as CSC or P2P do not sufficiently capture the concept of 'sharing' in the sense of 'sharing culture' which seems to better fit with the rationale of energy communities. Despite a lack of understanding of the concept of 'energy sharing', the Directives provide some guidance as to its possible meaning, especially in the recitals concerning the purpose of energy communities. Based on this, energy sharing could be designed as a 'social benefit' of energy communities as required under EU legislation as the following sections explain.

1. The EU Legal Rationale of 'Energy Sharing'

Energy communities constitute the operative context for implementing 'energy sharing'. As explained in Section 2, the two distinctive features of energy communities are their governance (process dimension) and their purpose (outcome dimension). Both aspects are specified in EU legislation and clearly establish energy communities as open, democratic, and inclusive in their governance and economically, environmentally, and socially beneficial in their purpose (see Section 3). Energy communities seem to have a broader role than producing, distributing and/or supplying energy to final customers, but to fulfil a social value in terms of 'process' and 'outcome' of activities related to energy. This provides the relevant rationale for understanding the activity of 'sharing energy within energy communities' and it appears closer to the understanding of 'sharing culture' as outlined in Section 4. While the Directives do not further elaborate on the governance and the purpose in the provisions, recital 43 of the Electricity Market Directive and recitals 67 and 71 of the Renewable Energy Directive present more concrete ideas for the role energy communities are expected to take. The following list provides an overview of the concrete roles ascribed to energy communities as presented in these recitals:

- Energy communities offer an inclusive option for all consumers to have a direct stake in producing, consuming or sharing energy;

- Energy community initiatives focus primarily on providing affordable energy for their members or shareholders rather than on prioritising profit-making;

- By directly engaging with consumers, energy community initiatives demonstrate their potential to facilitate the uptake of new technologies and consumption patterns including smart distribution grids and demand response, in an integrated manner;

- Energy communities can also advance energy efficiency at household level and help fight energy poverty through reduced consumption and lower supply tariffs;

- Energy communities enable certain groups of household customers to participate in the electricity markets, who otherwise might not have been able to do so (specifically referring to vulnerable customers and tenants).[77]

The recitals extensively confirm the idea of energy communities as an inclusive entity which primarily fulfils a social role towards final customers in the energy sector. Clearly, this rationale determines the definition of the tasks of energy communities, including 'energy sharing'. The finding that 'energy sharing' should be considered as a distinctive activity is further supported by those recitals which clearly suggest that energy communities have a wider role to play in the energy sector than 'energy supply' in the traditional sense.

Nevertheless, this still leaves open the question of what 'energy sharing within the energy community' could mean. Based on the findings of this article, the following section proposes to design 'energy sharing' as a 'social benefit' requirement of energy communities.

2. Designing 'Energy Sharing' as a 'Social Benefit' of Energy Communities

The analysis of the term 'sharing' in Section 4 showed that on a conceptual level the understanding of 'sharing' is discussed and can either be interpreted in line with economic goals ('sharing economy') or wider, as something that complements the conventional economic system ('sharing culture'). As the overall aim of energy communities needs to be providing 'community benefits rather than financial profits', applying the idea of the 'sharing economy' might be too limited. Considering the wider context provided in the Directives as outlined in the preceding Section 6.1, it becomes clear that energy communities should fulfil social goals which could potentially be implemented via the activity of 'sharing'. 'Sharing is caring' is a widely known saying and assumption, meaning that we share because we care about each other's well-being. Applying this 'caring' aspect to 'energy sharing' would imply that energy sharing does not necessarily need to involve a reciprocal (commercial) exchange of energy for money. Rather social criteria promoting the nature of energy as an essential good for basic human needs should inspire the activities of energy communities in general and the activity of sharing in particular.

Identifying those in need of additional protection and support measures is probably even necessary considering that the 'activation' of consumers in the energy transition and their participation in new markets (such as demand response) as aspired by EU legislation will expectedly only be realistic for those who can afford it. Consumers who are less affluent might be excluded and even pushed into a more marginalised position as they cannot escape fluctuating prices and thus are at risk of having to shoulder even higher costs. Traditional consumer protection measures in the energy sector aim at ensuring reliable and affordable supply; in the context of the energy transition protection measures might need to include mechanisms which facilitate the participation of energy consumers in the energy transition beyond the market paradigm.[78] In this context, 'energy sharing' as a form of a 'social benefit' and consumer protection facilitated by energy communities could play a meaningful role.

Concerning the question of what exactly is shared, the legal text of the EU provision is clear that it is not the production activity which is subject to sharing, but the resource, the 'renewable energy/electricity'.[79] Thus, sharing does not imply a joint (shared) investment in production

installations, but that energy which has been produced by installations owned by the energy community is shared among its participants according to specified criteria. Considering the 'community benefit' purpose that energy communities have to fulfil, these criteria could give way to different goals and, in the sense of 'sharing culture' cannot merely be defined based on the financial contribution of the participants, but on criteria which represent the 'caring' aspect. This would require more nuanced criteria on how to identify those that are in need of extra care within the community. Such criteria should be aligned with the development of criteria defining energy poverty or vulnerable customer groups,[80] for example the income, the share of income spent on energy, the family situation, health conditions. Another possibility would be to determine a percentage of the energy produced by the community which is shared with participants which fall under the established criteria. This would not be a gift-giving practice, but follow the idea of sharing as a 'caring' practice, essentially, supporting other people for the sake of their well-being.

In this way, legal synergies between the concepts of energy poverty, vulnerable customers, and energy sharing could be identified and form the basis for further understanding and defining them. The current EU legal framework only mentions the parameters to be taken into account in defining vulnerable consumers at the national level.[81] 'Energy sharing' just emerged and is less developed, without any suggestions on how to understand this concept from a legal perspective in the context of the energy sector. Taking actual consumers' needs for defining the concept 'energy sharing' could be a functional starting point. In that view, 'energy sharing' should be seen as a potential activity addressing the issue of vulnerability and energy poverty allowing socially and economically disadvantaged subjects to be provided with energy at favourable terms. This would also do justice to the legal requirement of energy communities to create 'social benefits'.

VII. Conclusion

Understanding 'sharing' as something other than 'supply' touches upon the fundamental basis of the liberalisation of the energy sector as energy is not seen as a commercial good, but as a common commodity which is generated and used within one community and distributed according to the principle of solidarity. As mentioned at the outset of this article, one of the core aims of the liberalisation was to provide consumers with a free choice of a supply company. Along with this choice came additional rights related to their role as consumers, mainly related to protection, information, and transparency. Following the uptake of energy justice, just energy transition, and energy democracy (Section 2), energy consumers should become more than market actors by actively participating in the energy transition, sometimes referred to as 'energy citizenship', implying that individuals have social and political rights related to energy.[82] Energy communities are an entity which could facilitate the exercise of those rights as they enable different processes and outcomes of energy activities affecting a specific community. This is also acknowledged by the EU legal framework establishing provisions for REC and CEC. The challenge is to operationalise this potential in the context of the liberalised energy market. The aspect of 'energy sharing' exemplifies this complexity. Nevertheless, when taking the alternative that energy communities offer seriously, 'energy sharing' should be developed as a distinctive activity to 'supply'. This means, for example, that allowing energy communities to supply to their

members, i. e. acting as suppliers, does not sufficiently implement 'energy sharing'. The Directives seem to confirm this as several recitals highlight the social role of energy communities. This article aimed at emphasising the potential of 'energy sharing' and its relevance in the context of energy

communities and inspiring a discussion of how to further design 'energy sharing' from a legal perspective. The approach to do so was to propose a conceptual framework on how to understand 'energy sharing' which implies the limitation that the findings and suggestions remain rather abstract. Yet, considering that understanding 'sharing' as a new legal activity in the energy sector requires exploring its purpose more fundamentally explains why a conceptual approach is considered useful at this stage. With the further transposition of the provisions of energy communities, including on sharing, research on its more concrete implementation would be of great value.

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* Dr. Lea Diestelmeier is Assistant Professor at the Faculty of Law of the University of Groningen (Groningen Centre of Energy Law and Sustainability); l.diestelmeier@rug.nl.Dr. Viola Cappelli is Postdoctoral Researcher in Private Law at Scuola Superiore Sant'Anna in Pisa (Institute of Law, Politics and Development); viola.cappelli@santannapisa.it.The authors jointly contributed to developing the idea and writing the article. Lea Diestelmeier is primarily responsible for sections 1, 2, 5.2., 6, and 7. Viola Cappelli is primarily responsible for sections 3, 4, 5, and 5.1. Both authors are grateful to the anonymous reviewers for the comments and suggestions made regarding the first version of the article.

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