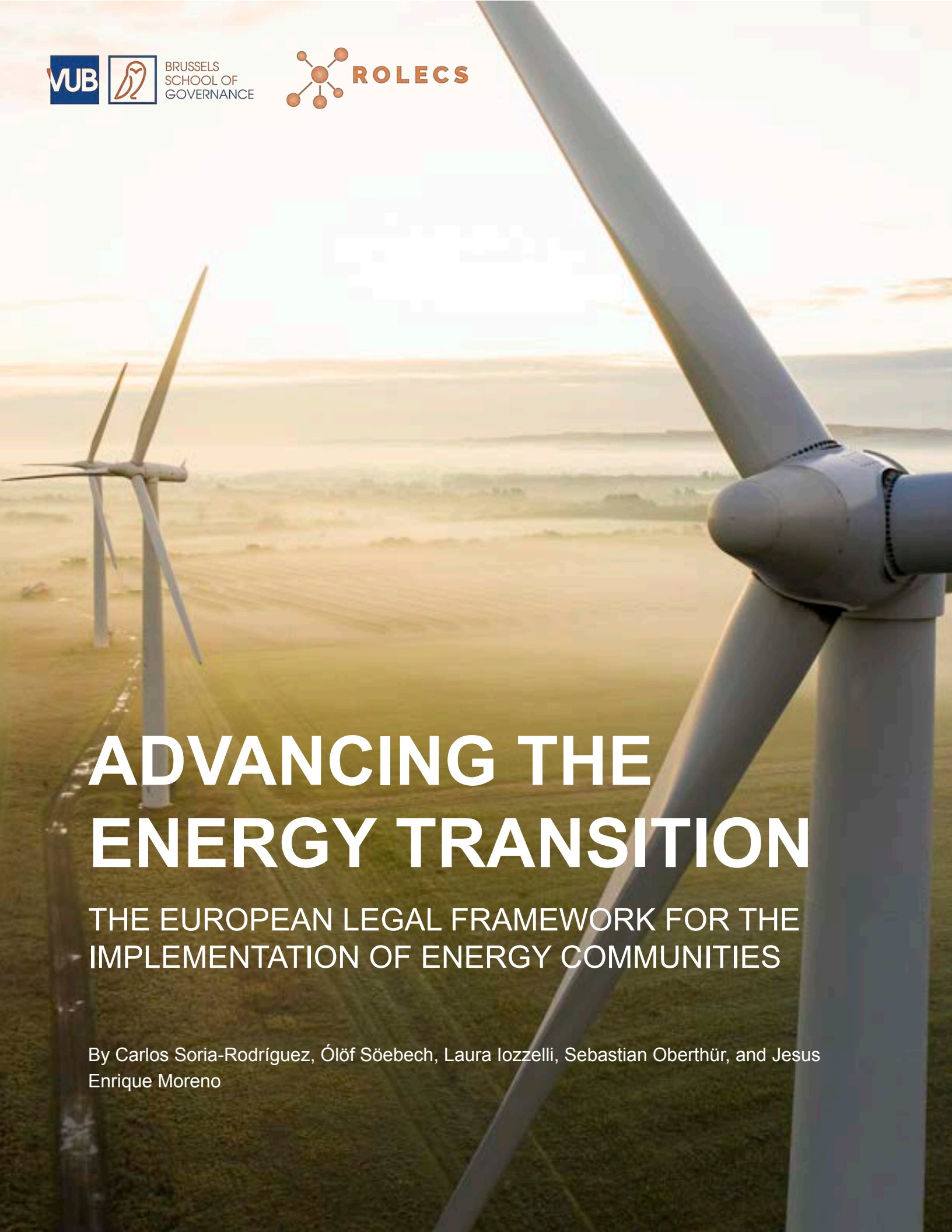

VUB BRUSSELS SCHOOL OF GOVERNANCE

ROLECS

ADVANCING THE ENERGY TRANSITION

THE EUROPEAN LEGAL FRAMEWORK FOR THE IMPLEMENTATION OF ENERGY COMMUNITIES

By Carlos Soria-Rodríguez, Ólöf Söebech, Laura Iozzelli, Sebastian Oberthür, and Jesus Enrique Moreno

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Acronyms and Abbreviations	
ACER	European Union Agency for the Cooperation of Energy Regulators
ACER Regulation	Regulation 2019/942 establishing a European Union Agency for the Cooperation of Energy Regulators
ASSET	Advanced System Studies for Energy Transition
CEC	Citizen Energy Community
CEP	Clean Energy for all Europeans package
DSO	Distribution System Operator
ECs	Energy Communities
EEA	European Economic Area
IEMD	Directive 2019/944 on common rules for the internal market for electricity
EU	European Union
EUS	Energy Union Strategy
Governance Regulation	Governance of the energy union and climate action Regulation 2018/1999
MS	Member States of the European Union
REC	Renewable Energy Community
REDII	Recast of Renewable Energy Directive 2018/2001
RES	Renewable Energy Sources

About this report

This report was developed within the context of ROLECS – Roll Out of Local Energy Communities – a FLUX50 VLAIO funded research project that ran from 2019-2021. A cooperation between several Flemish research institutes active in the energy sectors, including the Brussels School of Governance (BSoG), and 25 companies, ROLECS has worked towards gaining a deeper understanding and maximizing the potential of Energy Communities for advancing renewable energy and the energy transition. These communities, following up on EU policy on energy, create a landscape that is potentially more sustainable and offers active participation of the end-consumer/producer (the so-called prosumer).

Against this backdrop, the report aims to explore the *impact of existing European legislation on the implementation of Energy Communities in Member States from a legal perspective*. More specifically, its objective is *to identify legislative barriers by exploring the potential legal structure of Energy Communities and the interaction with existing legislation.*

The report delivers an analysis of the European legislative framework where the relevant EU directives are explained, an overview is provided of how they could be interpreted, the possible implications of these directives on states and on energy communities explored, as well as an identification of some of the obstacles or opportunities faced by Member States and energy communities when these directives are transposed into national law. The report explores the current relevant EU regulatory framework for energy communities in three main steps:

1. It introduces Renewable Energy Communities (RECs) and Citizen Energy Communities (CECs) by examining their purpose and key definitional elements under the existing legal framework, addressing both the elements common to RECs and CECs and their exclusive features.

2. It identifies the legal obligations of MS to foster RECs and CECs as well as challenges faced by MS for the development and implementation of energy communities at national level.

3. It presents and reflects on some of the general challenges and regulatory barriers to the implementation of ECs while also illustrating how the current regulatory framework addresses those challenges and barriers.

THE EUROPEAN REGULATORY FRAMEWORK FOR ENERGY COMMUNITIES

1. INTRODUCTION TO ENERGY COMMUNITIES UNDER THE EXISTING EU REGULATORY FRAMEWORK

As part of three decades of an ongoing transformation process towards achieving the energy transition,[1] the European Union (EU) agreed in 2015 to increase its efforts to build an energy union that provides European consumers[2] with secure, sustainable, competitive and affordable energy.[3] To achieve this goal, the European Commission introduced in 2018 the 'Clean Energy for all Europeans' package (CEP). Currently, this normative framework is composed of eight pieces of legislation addressing energy performance in buildings, renewable energy, energy efficiency, regulation of governance, electricity market design and adoption processes by Member States (MS) in the EU. The regulation of energy community initiatives falls within the scope of the CEP.

The EU has framed two possible configurations for energy communities (ECs), namely **the 'renewable energy community' (REC)** and the **'citizen energy community' (CEC)**. The REC is regulated under the framework provided by the recast Directive 2018/2001 (the **Renewable Energy Directive or REDII**)[4] and the Governance of the energy union and climate action Regulation 2018/1999 (**Governance Regulation**),[5] while the CEC is regulated under the recast Directive 2019/944 on common rules for the internal market for electricity (the **Internal Electricity Market Directive or IEMD**)[6] and the Regulation 2019/942 establishing a European Union Agency for the Cooperation of Energy Regulators (**ACER Regulation**).[7] Table 1 presents the list of legal instruments regulating both types of energy communities.

Table 1. The EU regulatory framework for energy communities.

Legislative Acts	Entry into force	Main topic addressed	Energy community
Directive (EU) 2018/2001 (REDII)	11 December 2018	Recast on renewable energy	REC
Regulation (EU)2018/1999 (Governance Regulation)	11 December 2018	Governance of the Energy Union	REC
Directive (EU) 2019/944 (IEMD)	5 June 2019	Common rules for the internal market for electricity	CEC
Regulation (EU) 2019/942 (ACER Regulation)	5 June 2019	Agency for the Cooperation of Energy Regulators (ACER)	CEC

1 Vansintjan, D. (2019). 'Mobilising European Citizens to Invest in Sustainable Energy'. Final results-oriented report of the Rescoop Mecise Horizon 2020 Project, p.11.

2 Households and businesses.

3 In 2015, the Energy Union Strategy (EUS) was adopted by the European Commission. The EUS constitutes an attempt to build an energy union that provides European consumers with secure, sustainable, competitive and affordable energy. The EUS laid down five inter-related dimensions: (i) security, solidarity and trust in the diversification of Europe's sources of energy; (ii) a fully integrated European energy market; (iii) improvement of energy efficiency by a moderated demand and dependence of imported energy; (iv) decarbonization of the economy; and (v) support for research, innovation and competitiveness breakthroughs.

4 Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (hereinafter 'REDII').

5 Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council (hereinafter 'Governance Regulation').

6 Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU (hereinafter 'IEMD').

7 Regulation (EU) 2019/942 of the European Parliament and of the Council of 5 June 2019 establishing a European Union Agency for the Cooperation of Energy Regulators (hereinafter 'ACER Regulation').

This report analyses the existing EU regulatory framework on ECs in three main steps. First, it introduces RECs and CECs by examining their purpose and key definitional elements under the existing legal framework, addressing both the elements common to RECs and CECs and their exclusive features. Second, it identifies the legal obligations of MS to promote RECs and CECs as well as challenges faced by MS for the development and implementation of ECs at national level. Finally, it discusses key general challenges and regulatory barriers to the implementation of ECs and illustrates how the current regulatory framework addresses those challenges and barriers.

1.2 Defining RECs and CECs under the current regulatory framework

Energy communities are community initiatives[8] able to produce, consume, distribute or supply (local) demand of energy with self-generated energy from conventional or renewable energy sources (RES).[9] A novel and emerging phenomenon in the EU, community energy initiatives have a **unique legal configuration** which sets them apart from traditional energy market actors.[10] Recital 71 of the REDII indicates that RECs can be distinguished from traditional actors by their size and ownership structure, whereas recital 46 of the IEMD states that CECs constitute a new type of entity due to their membership structure, governance requirements and purpose.

Article 2.16 of the REDII defines a REC as:

"a legal entity: (a) which, in accordance with the applicable national law, is based on open and voluntary participation, is autonomous, and is effectively controlled by shareholders or members that are located in the proximity of the renewable energy projects that are owned and developed by that legal entity; (b) the shareholders or members of which are natural persons, SMEs or local authorities, including municipalities; (c) the primary purpose of which is to provide environmental, economic or social community benefits for its shareholders or members or for the local areas where it operates, rather than financial profits."[11]

Article 2.11 of the IEMD defines a CEC as:

"a legal entity that: (a) is based on voluntary and open participation and is effectively controlled by members or shareholders that are natural persons, local authorities, including municipalities, or small enterprises; (b) has for its primary purpose to provide environmental, economic or social community benefits to its members or shareholders or to the local areas where it operates rather than to generate financial profits; and (c) may engage in generation, including from renewable sources, distribution, supply, consumption, aggregation, energy storage, energy efficiency services or charging services for electric vehicles or provide other energy services to its members or shareholders."[12]

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8 Savaresi, A. (2019). 'The Rise of Community Energy from Grassroots to Mainstream: The Role of Law and Policy'. Journal of Environmental Law, p. 2.

9 Broeckx, S., Ramos, A., Yemane Hadush, S. & Meeus, L. (2019). 'The future of DSOs: Our take on energy communities and regulatory sandboxes'. Vlerick Business School, p. 5

10 Tounquet, F., De Vos, L., Abada, I., Kielichowska, I. & Klessmann, C. (2019). 'Energy Communities in the European Union'. ASSET Project, European Commission, p. 6; Frieden, D., Tuerk, A., Roberts, J., d'Herbemont, S. & Gubina, A. (2019). 'Collective self-consumption and energy communities: Overview of emerging regulatory approaches in Europe'. Compile: Integrating community power in energy islands, p. 6.

11 REDII, art. 2.16.

12 IEMD, art. 2.11.

A first comparison of the definitions laid down by the directives for RECs and CECs indicates that both entities share major features, while also presenting some differences. Table 2 below summarises the main features of RECs and CECs.

Table 2. Main features of RECs and CECs.

	Renewable energy community (REC)	Citizen energy community (CEC)
Legal status and membership	Legal entity Voluntary and open participation Natural person, SMEs* or local authorities (including municipalities)	Legal entity Voluntary and open participation Natural person, local authorities (including municipalities) or small enterprises*
Control	Effective control by members or shareholder	Effective control by members or shareholders
Objectives	To provide environmental, economic or social benefits for* the community rather than financial profits	To provide environmental, economic or social benefits to* the community rather than financial profits
Geographical limitation	In the proximity* of the renewable energy project	Not specified*
Deployed technologies / activities	Ownership and development of the energy project*	Generation (including from renewable sources), distribution, supply, consumption, aggregation, energy storage, energy efficiency services or charging services to its members or shareholders*
Applicable law	Applicable national law*	Not specified*
Autonomy	Yes*	Not specified*

**The main differences between both energy communities have been highlighted.*

1.3 Purpose of RECs and CECs

The primary purpose of both types of energy communities is defined in their respective regulatory frameworks. In accordance with the REDII and the IEMD, the primary purpose of RECs and CECs is to "provide **environmental, economic or social community benefits**" to their members or shareholders or the local areas where they operate, rather than profit-making.[13] In line with the existing regulatory framework, research has underlined that community involvement may be beneficial for communities, for the environment and for the development of renewable energy more generally.[14] Energy communities

13 REDII, art. 2.16; IEMD, art. 2.11.

14 Haggett, C. & Aitken, M. (2015). 'Grassroots Energy Innovations: The Role of Community Ownership and Invest-

foster social transformation by leading local communities to pursue common goals, e.g. energy cost reduction and energy self-sufficiency, while also playing a relevant role in local economic growth, job creation and in providing valuable flexibility services to be traded in emerging markets, thereby accelerating the transition to a low-carbon economy.[15]

Both the REDII and the IEMD require MS to adopt an **enabling framework to promote and facilitate the development of energy communities**. Such framework is meant to ensure that ECs "are subject to fair, proportionate and transparent procedures."[16] Both directives[17] also acknowledge that ECs serve multiple purposes, including increased participation of citizens in the energy transition, augmented choice for consumers, growing societal acceptance of renewable energy sources and increased local investment.

While the framework does not further specify what the 'community benefits' entail specifically, recital 43 of the IEMD indicates that "community energy initiatives focus primarily on providing affordable energy of a specific kind, such as renewable energy, for their members or shareholders rather than on prioritising profit-making like a traditional electricity undertaking".[18] Furthermore, the recital highlights that CECs have significant potential in terms of energy efficiency, new technology uptake as well as energy saving, and they aim to meet citizens' needs and expectations towards energy sources, services and local participation.[19] While neither legal instrument specifies how such 'environmental, economic or social benefits' shall be defined, measured or reported,[20] several authors have shed light on how these benefits are pursued by RECs and CECs.

Regarding the **environmental benefits**, Bauwens and colleagues indicate that the environmental purpose of energy communities relates to the overarching goal of reducing emissions and pollution and to play a role in combatting climate change. Additionally, environmental benefits may also be targeted towards local areas.[21] As an example, the use of RES in RECs and CECs could potentially improve local air quality by lowering pollution obtained by the production of heat or electricity from fossil fuels.[22] Furthermore, community involvement with the energy projects does not only influence awareness-raising on climate and energy issues, but it also helps to address these problems. Being empowered to participate in energy projects and taking responsibility for energy production may lead to a stronger relationship with the process and implications of this production, resulting in increased awareness and responsible consumption practices.[23]

Concerning the **economic benefits**, some authors remark that energy communities can create local value and develop local economies[24] by allocating and investing their earnings within the community and in the local areas where they operate.[25] Burke and Stephens indicate that the creation of energy communities

ment'. Curr Sustainable Renewable Energy Rep, p. 99.

15 Reis, I. F. G., Gonçalves, I. et al. (2021). 'Business Models for Energy Communities: A Review of Key Issues and Trends'. Renewable and Sustainable Energy Reviews 144.

16 REDII, art. 22.4(d); IEMD, art.16.1(e).

17 See e.g. recital 70 and 71 of REDII and recital 43 of IEMD.

18 IEMD, recital 43.

19 IEMD, recital 43.

20 Savaresi, A., supra note 8, p. 18.

21 Bauwens, T., Huybrechts, B. & Dufays, F. (2019). 'Understanding the Diverse Scaling Strategies of Social Enterprises as Hybrid Organizations: The Case of Renewable Energy Cooperatives'. Empirical Research Article, Organization & Environment, p. 15.

22 Hannoset, A., Peeters, L. & Tuerk, A. (2019). 'Energy Communities in the EU'. Bridge Horizon 2020, Task Force Energy Communities, p. 40.

23 Burke, M & Stephens, J. (2017). 'Political power and renewable energy futures: A critical review'. Energy Research & Social Science 35, p. 79.

24 Hannoset, A., et al., supra note 22, p. 40.

25 Burke, M. & Stephens, J. (2017). 'Energy democracy: Goals and policy instruments for sociotechnical transitions'

in MS can produce "a clear link between local generation and local use [of energy to] potentially transform poor and neglected communities into energy producers."[26] Furthermore, other authors stress that energy generation, consumption and distribution can contribute to job creation, which may prevent talent-migration from rural areas to big cities.[27] Related to this, recital 43 of the IEMD highlights that energy communities can help households and local communities fight energy poverty by generating, saving and reducing the consumption of energy as well as lowering supply tariffs.[28] Moreover, RECs and CECs can create values of "shared ownership and community-based resources rather than facilitating wealth accumulation"[29] for energy corporations. These values are helpful to nurture a culture of cooperation among the members of the energy community.[30] However, the line between economic benefits and profit-making is not specified or clearly defined by neither of the directives nor the literature.[31]

RECs and CECs also have the potential to provide **social benefits** to their members and the community they are located in. Recital 43 of the IEMD indicates that energy communities can enable participation in the energy market of certain groups "who otherwise might not have been able to do so." [32] Hence, RECs and CECs can enhance energy democracy by giving ownership and decision-making powers to these groups (e.g., households).[33] They provide **opportunities to advance social and environmental justice** through community based (decentralised) energy democracy thereby facilitating the transition toward renewable energy futures. In this way, they relocate the power back into the communities.[34] RECs and CECs can also provide working benefits for the local community where they operate and their individual members. According to Burke and Stephens, empowering workers by protecting their rights and generating secure and meaningful work for them is one of the objectives pursued by community energy initiatives to achieve the desired energy transition in the EU.[35] In general, RECs and CECs can potentially be instruments that nourish community solidarity, sense of autonomy, empowerment and resilience, as well as opportunities for education and a strengthened connection and sense of place.

Overall, the purpose of RECs and CECs is to provide environmental, economic or social community benefits to their members and the local areas where they operate rather than just delivering energy and financial returns.[36] While ECs can provide "economic, social and environmental benefits to the community that go beyond the mere benefits derived from the provision of energy services," [37] both REDII and IEMD recognise that energy communities may be at a disadvantage when it comes to their establishment and access to the market in comparison to larger players. As ECs face a cost disadvantage, at least in their start-up phase, adapting the regulatory environment, and easing their economic and administrative burden is a means to support their development. As Hannoset and colleagues suggest, the objective of these communities should "help mobilize private financial means, lower public resistance against energy transition and enhance flexibility in the market." [38]

Energy Research & Social Science 33, p. 38.

26 Ibid.

27 Hannoset, A., et al., supra note 22, p. 40.

28 IEMD, recital 43.

29 Burke, M & Stephens, J., supra note 23, p. 38.

30 Hannoset, A., et al., supra note 22, p. 40.

31 Ibid., p. 39.

32 IEMD, recital 43.

33 Hannoset, A., et al., supra note 22, p. 40.

34 Burke, M & Stephens, J., supra note 23, p. 78-79.

35 Ibid.

36 Savaresi, A., supra note 8, p. 1.

37 IEMD recital 43.

38 Hannoset, A., et al., supra note 22, p. 9.

2. DEFINITIONS OF RECS AND CECS

This section explores the definitions of RECs and CECs as they apply in the existing legal framework, including those with unclear and/or undefined terminology. The following features characterise energy communities: (a) Legal entity; (b) Membership conditions, including definitions of open and voluntary participation and local authorities and local areas; (c) Community definition, including the concept of proximity (for RECs); (d) Effective control; and (e) Autonomy (for RECs).

While RECs and CECs share these features to a large extent, their definitions also present some differences, which may have implications for their implementation. Key differences pertain to who can participate in the energy community (membership conditions) and the geographical scope (proximity) of the community participants.[39] The analysis in this chapter will also consider some potential challenges or barriers that the partly overlapping definitions of RECs and CECs entail for their development and implementation within MS (see also chapter 4 for an overview of key challenges or barriers).

2.1 Legal entity

Both the REC and the CEC are framed as legal entities in their respective legal frameworks. **The legal entity must be organised around specific ownership and governance principles, and a non-commercial purpose**.[40] The choice of legal configuration to shape the community is left to MS' discretion.[41] Accordingly, recital 71 of the REDII states that, "it should be possible for Member States to choose any form of entity for renewable energy communities, provided that such an entity may, acting in its own name, exercise rights and be subject to obligations." [42] Similarly, according to recital 44 of the IEMD, "it should [...] be possible for Member States to provide that citizen energy communities take any form of entity, for example that of an association, a cooperative, a partnership, a non- profit organisation or a small or medium-sized enterprise, provided that the entity is entitled to exercise rights and be subject to obligations in its own name." [43] A variety of legal organisational forms are commonly available under MS legislation to set up energy communities, including cooperatives, partnerships, trusts, foundations, associations or community-owned companies.[44] However, some novel and unique legal forms are applicable only in certain MS, such as in Italy, where social benefit companies or community interest companies exist.[45]

The decision to choose one legal configuration over another will be partly influenced by support schemes and other forms of incentives made available by the national legislation.[46] For example, the cooperative model is a predominant form of legal entity for energy communities in countries with strong community traditions such as Denmark, Germany and Sweden, where cooperatives have greater access to incentives

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39 Conradie, P.D., De Ruyck, O., Saldien, J., Ponnet, K. (2021). 'Who wants to join a renewable energy community in Flanders? Applying an extended model of Theory of Planned Behavior to understand intent to participate'. Energy Policy 151.

40 REScoop (2020). 'Energy Communities under the Clean Energy Package. Transposition Guidance Report', p. 13.

41 Savaresi, A., supra note 8, p. 12

42 REDII, recital 71.

43 IMED, recital 44.

44 Haggett, C. & Aitken, M. (2017). 'Grassroots Energy Innovations: The Role of Community Ownership and Investment'. Curr Sustainable Renewable Energy Rep, p. 2; Scottish Government. (2017). 'Onshore wind: Policy Statement', p. 27; Slee, B. & Harnmeijer, J. (2017). 'Community Renewables: Balancing Optimism with Reality' in Chapter 3 of Wood, G. & Baker, K. (Eds) *A Critical Review of Scottish Renewable and Low Carbon Energy Policy* ,p. 45; Aitken, M., McDonald, S. & Strachan, P. (2008). 'Locating "Power" in Wind Power Planning Processes: The (Not so) influential role of Local Objectors'. J Environ Plann & Mann, p. 777.

45 Hannoset, A., et al., supra note 22, p. 35.

46 Savaresi, A., supra note 8, p. 10.

than in other European countries.[47] Some authors suggest that MS should refrain from favouring one specific type of legal form over others, as promoting only one legal entity form of energy community may limit or harm the development of RECs and CECs (e.g., Società Civil in Italy).[48] To avoid this type of barrier, Campos and colleagues argue that it is important to allow innovation, new business and financial models and experimentation in community forms for the development of RECs and CECs in MS.[49]

2.2 Membership conditions

As regards eligibility criteria to become a member of an energy community, the existing regulatory framework provides different definitions for RECs and CECs. According to the REDII, eligible members in a REC are "**natural persons; SMEs or local authorities, including municipalities**."[50] Thus, the Directive poses some limitations in terms of what companies can be members of RECs, based on their size.[51] Conversely, the IEMD establishes broader eligibility criteria for CECs and does not place any limits on eligibility to become a member or shareholder.[52] According to its recital 44, "**membership of citizen energy communities should be open to all categories of entities**." [53] In particular, the IEMD enables the participation of natural persons, SMEs, large enterprises and local authorities as members of the CECs.[54]

While private households are mainly envisioned to participate in RECs,[55] the REDII is open for the participation of SMEs in RECs to the extent that "their participation does not constitute their primary commercial or professional activity."[56] Moreover, large enterprises will not be allowed to participate in RECs.[57] However, MS may face barriers when evaluating these requirements to create an energy community. For example, setting the revenue of a company as a criterion to define its size can be challenging for MS with limited or no experience regulating energy communities.[58]

2.2.1 Open and voluntary participation

Both the REC and CEC definitions require them to be "**based on open and voluntary participation**."[59] Recital 71 of the REDII states that "participation in renewable energy projects should be open to all

47 Ibid., p.12; Caramizaru. A. & Uihlein, A. (2020). 'Energy communities: an overview of energy and social innovation'. JRC science for Policy Report. European Commission, p. 15.

48 Hannoset, A., et al., supra note 22, p. 26.

49 Campos, I., Pontes, L., Marin-Gonzalez, E., Gahrs, S., Hall, S. & Holstenkamp, L. (2019). 'Regulatory challenges and opportunities for collective renewable energy prosumers in the EU'. Energy policy, p. 9.

50 REDII, art. 2.16(b).

51 REScoop, supra note 40, p.24.

52 Ibid., p. 25.

53 IEMD, recital 44.

54 Frieden, D. et al., supra note 10, p. 9.

55 REDII, art. 22.1.

56 Ibid.

57 Hannoset, A., et al., supra note 22, p. 33; REDII, art. 2.16.

58 Rescoop, (2019). 'Europe's new energy market design: what does the final piece of the Clean Energy Package puzzle mean for energy democracy? Policy paper. Retrieved from: https://www.rescoop.eu/blog/europe-s-new-energy-market-design-what-does-the-final-piece-of-the-clean.

59 See REDII, recital 16.a and IEMD, recital 11.a.

potential local members based on objective, transparent and non-discriminatory criteria".[60] Thus, the 'open' basis condition entails that energy communities should not be able to develop **discriminatory or arbitrary eligibility criteria** or to exclude anyone willing to undertake the responsibilities of membership.[61] At the same time, "this should not prohibit RECs from developing criteria for membership(e.g., minimum investment thresholds), as long as they are not arbitrary or meant to discriminate." [62]

The 'voluntary' participation refers to the **right of a citizen to be a part of, or to cease participation in an energy community** without any influence from other parties.[63] Regarding the aspect of voluntariness, fixed in EU legislation is that consumers must be able to maintain their rights as consumers, which includes the right to switch suppliers.[64] Accordingly, recital 43 of the IEMD states that "no one can be forced to join or to stay in an energy community, and normal rules regarding consumers' rights to switch suppliers or service provider must be respected." However, the stability of energy communities might be at risk if participants are free to leave the community at any time. Such risk might be countered by providing RECs and CECs with the option to impose reasonable limitations on members' ability to dissolve their investment in the community, as this is necessary to ensure the long-term financial sustainability of the energy community itself.[65]

In this matter, MS may face challenges when analysing the measures adopted by energy communities to restrict that voluntary element through contractual clauses. As an example, the 'voluntary' participation may depend "on the specified period of time in which the members or shareholders are allowed to leave, as well as the mandatory notice period." [66] However, this barrier to voluntary participation may not apply to the same degree to shareholders since the provisions of the normative framework do not specify the difference between members and shareholders. Hence, there may be a difference pending to be resolved by national law between ceasing to participate in an energy community as a member (energy consumer) and as a shareholding member. For instance, according to Luxembourg's draft law transposing RECs, participation in a REC is voluntary, which means that members maintain their rights as final customers (including the right to switch supplier).[67] In addition, members or shareholders of RECs must have the right to leave the community with notice that cannot exceed one year and in case members are in sharing energy within a REC, they must still be able to supply themselves for their remaining energy needs through the supplier of their choice. [68]

2.2.2 Local authorities and local areas

The European Commission defines 'local authorities' as "**public institutions with legal personality**, a component of the State structure, below the level of the central government and accountable to citizens."[69] They are usually composed of a deliberating council or assembly and an executive body.[70]

60 REDII, recital 71.

61 Roberts, J. (2020). 'Power to the People? Implications of the Clean Energy Package for the Role of Community Ownership in Europe's Energy Transition', RECIEL, p. 237.

62 REScoop, supra note 40, p. 22.

63 IEMD, art. 16.1(b).

64 REScoop, supra note 40, p. 23.

65 Ibid.

66 Hannoset, A., et al., supra note 22, p. 36.

67 REScoop, supra note 40, pp. 23-24.

68 Ibid.

69 European Commission (2013). 'Empowering Local Authorities in partner countries for enhanced governance and more effective development outcomes'. COM (2013) 280 final, p. 2.

70 Ibid.

For example, a local authority can be found in villages, municipalities, districts, counties, provinces, and regions.[71] According to Article 2.16 of the REDII and Article 2.11 of the IEMD, a 'local authority' can be a member or shareholder of an energy community, including municipalities. Another terminology used in the normative framework related to 'local authorities' is 'local areas'. The concept of local area is not defined in the regulatory framework. However, the instruments establish a territorial relationship between the energy project and the shareholders/members of the energy community, [72] which can be helpful to geographically delimitate an area.

2.3 Community definition

The literature has traditionally distinguished between communities 'of place' and communities 'of interest' to determine which actors can be involved in the activities of an energy community.[73] While a community of place refers to the interactions between people living in the same place where a project is developed,[74] a community of interest focuses on interactions between people "who choose to actively engage with a project, regardless of where they live".[75] In this matter, the normative framework envisioned **CEC as a 'community of interest'**.[76]A CEC allows any type of actor to join the community irrespective of its geographical location[77]. Accordingly, recital 44 of the IEMD states that "membership of citizen energy communities should be open to all categories of entities." [78] Conversely, according to Article 2.16(a) of the REDII, a REC "[...] is effectively controlled by shareholders or members that are located in the proximity of the renewable energy projects that are owned and developed by that legal entity." [79] Thus, contrary to a CEC which makes no distinction of physical proximity, **a REC can be considered as a 'community of place'**, which brings collective benefits to the local community.[80] The criterion of geographical proximity allows only those actors *located in the proximity* [81] of the project to participate in the REC.

Some authors have identified that a new trend of community membership has emerged in recent years, known as 'virtual communities.' In this matter, Van Summeren and colleagues clarify that the community relationships and organization in a 'virtual community' is based on a social network of people collectively engaging in energy related initiatives and projects.[82] With this new type of membership, questions arise about whether RECs and CECs could be configurated under virtual communities. While CECs could also leave room for 'virtual communities' configurations, the proximity criterion of RECs excludes the 'virtual' element from defining interactions between its members.

The literature suggests that allowing national law criteria to interpret elements such as 'community membership' may result in limited promotion of energy communities at MS level.[83] To avoid that possible

71 Ibid.

72 REDII, art. 2.16; IEMD, art. 2.11.

73 Savaresi, A., supra note 8, p. 9; Hannoset, A., et al., supra note 22, p. 36; Brennan, M., Bridger, J. & Alter, T. (2013). 'Theory, Practice, and Community Development'. Routledge, p. 41; Roberts, J., supra note 61.

74 Brennan, M., et al., supra note 73, p. 41.

75 Savaresi, A., supra note 8, p. 9.

76 Hannoset, A., et al., supra note 22, p. 36.

77 Ibid.

78 IEMD, recital 44.

79 REDII, recital 16a.

80 Savaresi, A., supra note 8, p. 9.

81 REDII, art. 2.16.

82 Van Summeren, L., et al. (2019). 'Defining community-based Virtual Power Plant (cVPP)'. Interreg, North-West Europe. European Regional Development Fund, p. 2.

83 Savaresi, A., supra note 8, p. 9-10; Hannoset, A., et al., supra note 22, p. 36.

barrier, MS do not only need to allow national spaces for experiments in energy community legal form,[84] but also regarding entity size, ownership structure and type of project that characterize the energy community initiative (e.g., virtual communities).[85]

2.3.1 The concept of proximity (RECs)

Article 2.16(a) of the REDII requires that RECs are "effectively controlled by shareholders or members that are located in the **proximity** of the renewable energy projects that are owned and developed by that legal entity". While 'proximity' is not defined in the REDII, the Directive indicates that the definition of 'proximity' from a renewable energy project may vary according to national laws.[86] The inclusion of the proximity criterion in REDII implies a geographical scope that is smaller than the whole jurisdiction of a Member State.

Savaresi indicates that the term gives priority to become part of the community to those who live in or near the project area over those who may only have an interest in the project.[87] In this matter, the author affirms that the REDII leaves the decision of identifying the relevant criteria to define proximity to the discretion of MS.[88] However, MS should ensure that the definition given to 'proximity' is not narrow to avoid barriers for the development of RECs, as Friends of the Earth Europe have suggested.[89] Proximity could be defined based on distance from the energy project or from the headquarters of the company, location within the boundaries of a city or municipality (where all or most of the members should live) or based on technical parameters (e.g. grid hierarchy).[90] The lack of a common definition for 'proximity' adopted by the EU or among MS may present a challenge for MS to promote the development of RECs in their territories.

2.4 Effective control

The IEMD defines 'control' as:

"Rights, contracts or other means which, either separately or in combination and having regard to the considerations of fact or law involved, confer the possibility of exercising decisive influence on an undertaking, in particular by: (a) ownership or the right to use all or part of the assets of an undertaking; (b) rights or contracts which confer decisive influence on the composition, voting or decisions of the organs of an undertaking." [91]

In other words, control can be defined as the **possibility to exercise a decisive influence on actions to execute**, either by ownership or by rights over the energy community. To this end, the 'effective control' can be allocated to those who are managing or operating the energy community (i.e., *de facto* control) or to those who own the entity shares or hold rights to use the assets of the energy community (i.e., *de iure* control).[92] **For both RECs and CECs, MS national laws are set to translate further how**

84 Campos, I., et al., supra note 49, p. 26.

85 Van Summeren, L., et al., supra note 82, p. 9.

86 REDII, art. 2.16.

87 Savaresi, A., supra note 8, p. 9.

88 Ibid., p. 9.

89 Friends of the Earth Europe, Greenpeace, Energy Cities and REScoop, (2018). 'Unleashing the power of community renewable energy', p. 16.

90 Hannoset, A., et al., supra note 22, p 19.

91 IEMD, art. 2.56.

92 Hannoset, A., et al., supra note 22, p. 37; Savaresi, A., supra note 8, p. 6.

effective control is to be implemented. Article 2.16 of the REDII states that effective control shall be interpreted by MS in accordance with the applicable national law, whereas Article 2.11 of the IEMD does not include any specific provisions on the matter for CECs.[93]

The literature has identified different mechanisms of effective control implemented by MS, which are examples of both *de iure* and *de facto* control.[94] For instance, the interpretation of effective control as *de iure* control has been adopted by MS where the share ownership of a person or legal entity is narrowed up to a limited percentage of the total shares.[95] Opposed to this, the interpretation of effective control based on *de facto* control has been adopted by MS where the control of the energy community lies on the general assembly decisions rather than in shares ownership.[96]

2.5 Autonomy

Closely linked to effective control is the principle of 'autonomy', which focuses more on safeguarding the collective will of community members and enhancing the resilience of energy communities against influence from external actors.[97] The principle is mentioned explicitly only in relation to RECs[98], which are defined as autonomous entities[99]. Furthermore, according to recital 71 of the REDII, "to avoid abuse and to ensure broad participation, **renewable energy communities should be capable of remaining autonomous from individual members and other traditional market actors** that participate in the community as members or shareholders, or who cooperate through other means such as investment."[100] Hence, the community should remain autonomous from external actors to protect the decision-making power of its members. Autonomy is meant to ensure that control over a community is exercised jointly by its members, rather than by a single member or a small group of members, and that a community's democratic internal decision making is supported so that all members are adequately represented (regardless of their amount of investment). [101]

Several mechanisms (previously) implemented by some MS such as the Netherlands, Germany and Greece, can contribute to ensure autonomy by limiting the amount of investment and voting power in energy communities[102]. For instance, Greece has put in place a mechanism of autonomy by requesting the consent of the Board of Directors before a transfer of cooperative shares to a member of a third party can take place, as well as by imposing a minimum participation quota. [103] Overall, allowing for a certain independence to RECs and CECs to interpret and define their autonomy could enhance community participation.[104]

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93 Art. 2.16 of the REDII indicates that a REC is a "*a legal entity: (a)* ***which, in accordance with the applicable national law****, is based on open and voluntary participation, is autonomous, and* ***is effectively controlled by shareholders or members*** *that are located in the proximity of the renewable energy projects that are owned and developed by that legal entity (…)"* (own emphasis).

94 Hannoset, A., et al., supra note 22, p. 37; Savaresi, A., supra note 8, p. 6; Tounquet, F., et al., supra note 10, p. 97.

95 Savaresi, A., supra note 4, p. 6.

96 Tounquet, F., et al., supra note 10, p. 97.

97 BRIDGE Horizon 2020. 'Energy Communities in the EU Task Force Energy Communities' (2019), p. 37.

98 REScoop, supra note 40, p.32.

99 REDII, art. 2.16(a).

100 REDII, recital 71.

101 REScoop, supra note 40, p. 32.

102 Hannoset, A. et al., supra note 22.

103 Ibid., p. 28.

104 Ibid.

Regarding CECs, the IEMD does not explicitly mention the principle of autonomy but indirectly refers to it in its recital 44, according to which decision-making powers should be limited to those members or shareholders that are not engaged in large-scale commercial activity and for which the energy sector does not constitute a primary area or economic activity.[105]

2.6 Conclusions

In the context of the EU's energy transition and its decarbonisation targets, energy communities are gaining increasing relevance as decentralized renewable-based systems in which citizens are directly involved in energy consumption, generation, trading, and supply activities.[106] CECs and RECs are primarily value driven and focused on promoting sustainable energy production and consumption practices, rather than on generating financial profits. Both CECs and RECs seek to provide environmental, economic or social benefits for their members, shareholders or the local areas where they operate. While RECs and CECs pursue similar objectives, the legal instruments delineate slightly different purposes: while the IEMD intends to create a level playing field for CECs in the energy market as new market actors, the REDII focuses on promoting the creation and deployment of renewable energy sources in MS [107] by requiring MS to adopt an enabling framework as well as taking RECs into consideration when designing support schemed for renewable energy.[108]

The definitions provided by the REDII and IEMD show that RECs and CECs are very similar in their nature, while also displaying some important differences. Both types of energy communities are required to have a legal form. Thus, they require a legal entity as a community umbrella, represented by its members or shareholders, which shall exercise the effective control of the entity decision by *de facto* or *de iure* control. Also, the membership of both RECs and CECs must be based on an open and voluntary participation.

In addition, CECs and RECs can engage in similar activities, including generation, distribution, supply, aggregation, consumption, sharing, storage of energy and provision of energy-related services. In performing their activities, they must comply with the obligations and restrictions applicable to the other market participants in a non-discriminatory and proportional manner.[109]

Regarding their differences in matters of participation, while the CEC allows any type of actor to join the community, the REDII limits the eligibility to participate in RECs to natural persons, SMEs - thereby prohibiting large companies to join a community – and local authorities, to the extent that their participation in the entity does not constitute their primary commercial or professional activity. The geographic limitation is another factor of difference. On the one hand, a CEC can be defined as a 'community of interest' which does not include a geographic requirement and does not mandate that members should be located in the same area. On the other hand, a RECs can be understood as a 'community of place', where members or shareholders must be located in the proximity of the energy project[110].

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105 REScoop, supra note 40.

106 Reis, I.F.G. et al., supra note 15, p. 1.

107 Lowitzsch, J. et al. (2020). 'Renewable energy communities under the 2019 European Clean Energy Package – Governance model for the energy cluster of the future?' Renewable and Sustainable Energy Reviews 122; Reis, I.F.G. et al., supra note 15, p. 2.

108 Caramizaru. A. & Uihlein, A., supra note 47.

109 Ibid.

110 Conradie, P. D. et al. (2021). 'Who wants to join a renewable energy community in Flanders? Applying an extended model of Theory of Planned Behaviour to understand intent to participate', Energy Policy 151.

Furthermore, RECs and CECs also differ in terms of who can exercise effective control within them. For CECs, effective control is based on the size of the participant and is limited to natural persons, local authorities and small and micro-enterprises. In contrast, effective control in RECs is based on local geographic proximity. Specifically, RECs must be effectively controlled by members that are 'in proximity to the projects owned and developed by the community'.[111] Additionally, while the IEMD does not mention the principle of autonomy in relation to CECs, the REDII states that RECs should be able to remain autonomous entities to avoid abuse and ensure broad participation.

Finally, the two types of energy communities differ in terms of technologies applied to generate energy. While a CEC does not have a technology-specific focus and includes access to all types of energy sources (e.g., RES or fossil fuels) to generate electricity, a REC engages specifically on RES. Overall, RECs are subject to more strict organisational principles than CECs, particularly in terms of who is eligible to become a member, democratic decision-making (i.e., autonomy) and equal and non-discriminatory treatment of members. From this perspective, RECs can generally be seen as a subset, or type, of CECs.[112]

3. OBLIGATIONS IN THE IMPLEMENTATION OF ENERGY COMMUNITIES AT MS LEVEL

The first chapter of this report introduced RECs and CECs and illustrated their purpose under the current EU regulatory framework. The second chapter provided an analysis of the elements that configurate the definitions of energy communities in the EU directives and highlighted some of the main challenges and barriers that may derive from applying the definitions of energy communities at MS level. This third chapter builds on the previous two to provide an overview of the main obligations of MS set by the EU legal framework to promote and facilitate the development of RECs and CECs in their territories (see Tables 3 and 4 below for a summary). At the same time, it also identifies some of the challenges associated with the implementation of the regulatory framework within MS.

Table 3. Obligations of MS towards RECs

Normative framework	Provisions	Articles
REDII	Obligation to comply with the principle of non-discrimination	Art. 22.1
	Obligation to assess existing barriers for the development of RECs	Art. 22.3

Table 4. Obligations of MS towards CECs

Normative framework	Provisions	Articles
IEMD	Obligation to comply with the principle of non-discrimination	Art. 3
	Obligation to monitor the removal of unjustified obstacles and restrictions for the development of CECs	Art. 59

111 Roberts, J., supra note 61, pp. 237-238.

112 REScoop, supra note 40, p. 37.

	Obligation to provide fair, proportionate and transparent procedures for RECs' development	Art. 15.1 Art. 16.5 Art. 22.4 (d)
	Obligation to protect consumer rights	Art. 18
	Obligation to foster aggregation methods	Art. 22.2 (c)
	Obligation to implement support schemes	Art. 4
	Obligation to enable cross-border participation	Art. 22.6
	Obligation to provide tools to finance, information and capacity-building support	Art. 18.1 Art. 18.6 Art. 22.4 (h)
Governance Regulation	Obligation to assess existing barriers for the development of RECs	Art. 20 (b)7

	Obligation to provide fair, proportionate and transparent procedures for CECs' development	Art. 16.1 (e)
	Obligation to protect consumer rights	Art. 10.3 Art. 28.1 Art. 19.2 Art. 20 (a)
	Obligation to foster aggregation methods	Art. 16.3 (a)
	Obligation to implement support schemes	Art. 16.3 (f)
	Obligation to enable cross-border participation	Art. 16.2 (a) Art. 59.1 (b)
	Obligation to ensure third-party access	Art. 6.1 Art. 6.3 Art. 16.4 (a)
ACER Regulation	Obligation to monitor potential regulatory barriers for the development of CECs	Art. 15.1
	Obligation to enable cross-border participation	Art. 15.1

***Note**: differences in MS obligations towards RECs and CECs are indicated with different colours.*

The obligations of MS towards RECs and CECs are oriented to provide an enabling framework to promote and facilitate their creation and operativity within MS territories. The following obligations apply:

- MS shall adopt a framework that guarantees **non-discrimination** among actors of the energy market. Such framework shall protect RECs and CECs from discriminatory treatments in matter of activities, rights and obligations in the energy market and ensure the equal and non-discriminatory treatment of consumers that participate in energy communities.

- MS shall carry out an **assessment of existing barriers and potential** of the development of RECs within their territory. For CECs, the national regulatory authority shall have the responsibility to **monitor the removal of unjustified obstacles and restrictions** to the development of energy communities.

- Energy communities are entitled to receive **fair, proportionate and transparent procedures and charges** when it comes to registration and licensing procedures, as well as cost-reflective network charges. MS are called to adjust relevant levies and taxes to ensure the contribution of energy communities in an adequate, fair and balanced manner.

- IMS shall ensure **protection of consumer rights** for energy communities and guarantee that final consumers have access to all information relevant to their participation in an energy community. Furthermore, the IEMD states that consumers in energy communities shall also be entitled to all basic contractual rights, including transparent invoicing and information on fees, maintenance charge and associated products or services.

- MS shall enable **aggregation methods** by granting access (directly or indirectly) to energy communities to foster aggregation, based on RECs and CECs demand-response participation as final customers and without discrimination.

- MS shall implement **support schemes** designed to promote the creation and use of energy communities. MS shall guarantee that RECs and CECs are able to share electricity produced by the community without prejudice to applicable network charges, tariffs and levies. The support schemes shall also include provision for grid integration costs and stability.

- MS shall enable **cross-border participation** as an essential part of the enabling framework. MS are called to consider cross-border trade when designing support schemes. This would enable energy communities to compete for support on an equal footing with other market participants.

- Specifically for RECs, MS shall provide **tools to facilitate access to finance, information and capacity-building support**. These supporting measures to promote RECs are not only intended to train and support members of energy communities but include regulatory and capacity-building support for local authorities to enable their direct participation in REC projects.

- Specifically for CECs, MS shall **ensure third-party access** for CECs to manage transmission and distribution networks. The access shall be based on published tariffs, applicable to all customers, in an objective and non-discriminatory way between system users.

The next sections illustrate further each obligation towards RECs and CECs and highlight potential challenges associated with the implementation of these obligations at national level.

3.1 Obligation to comply with the principle of non-discrimination

In relation to RECs, the non-discrimination principle refers to the requirement for MS to ensure that individuals "are entitled to participate in a renewable energy community while maintaining their rights or obligations as final customers, and without being subject to unjustified or discriminatory conditions or procedures that would prevent their participation in a renewable energy community".[113] Regarding CECs, Article 3 of the IEMD assigns to MS the responsibility to "[...] ensure a level playing field where electricity undertakings are subject to transparent, proportionate and non-discriminatory rules, fees and treatment [...]".[114] Thus, in accordance with the existing regulatory framework, participation in energy communities should be based on non-discriminatory criteria.[115] MS cannot prevent eligible individuals from joining or starting an energy community, nor develop measures that hinder their access to participate in a community. As Hannoset and colleagues have indicated, measures limiting a person's involvement with RECs or CECs or limiting the access of these communities to the energy market could hinder the desired energy transition in the EU.[116] By guaranteeing the non-discrimination principle, MS could foster and safeguard both the participation of citizens in energy communities and the participation of RECs and CECs in the energy market more broadly.

3.2 Obligation to assess existing barriers and monitor obstacles and restrictions

The REDII indicates that MS should take additional measures to achieve the energy targets of the EU, i.e., in case "the share of renewable energy at Union level does not meet the Union trajectory towards the renewable energy target of at least 32 %". [117] These measures include the development of an assessment to be carried out by MS to contribute to the creation, protection and promotion of energy communities in the EU.[118]

For RECs, Article 22.3 of the REDII clarifies that "**MS shall carry out an assessment of the existing barriers and potential development of renewable energy communities** in their territories". Moreover, Article 20(b).7 of the Governance Regulation indicates that MS are required to include in these reports the policies and measures implemented at national level to promote and facilitate RECs' development.[119] While the REDII does not specify when the assessment of barriers and potential development should be conducted, MS should carry out such assessment before setting the enabling framework, so that the issues identified in the assessment can be properly and timely addressed in the framework.[120]

Differently from the REDII, the IEMD does not refer to the need to elaborate an assessment to address existing barriers for the development of CECs, but rather assigns to the regulatory authority of the national electricity market the responsibility to **monitor "the removal of unjustified obstacles to and restrictions** on the development of consumption of self-generated electricity and citizen energy communities".[121] Moreover, Article 15.1 of the ACER Regulation states that the European Union Agency for the Cooperation of Energy Regulators (ACER), in close cooperation with the Commission, MS, and

113 REDII, art. 22.1.

114 IEMD, art. 3.4.

115 Caramizaru, A. & Uihlein, A., supra note 47.

116 Hannoset, A., et al., supra note 22, p. 45.

117 REDII, recital 11. See also REDII, art. 3 and IEMD, art. 8.2(j).

118 REDII, recital 45; Governance Regulation, art. 20.b.7; IEMD, art. 59.1.z; ACER Regulation, art. 15.1.

119 Governance Regulation, art. 20.b.7.

120 REScoop, supra note 40, p.46.

121 IEMD, art. 59.1.z.

the relevant national authorities, shall monitor and report barriers for new and/or small market actors, where CECs are included.

This set of provisions pursue the levelling of the playing field in the energy market for energy communities via policy changes and by addressing eventual barriers that may emerge, but they leave more room for interpretation by the MS. As Hannoset and colleagues suggest, abstract provisions left for MS interpretation may constitute a barrier to implement the normative framework in a timely manner and raise questions on how they can be transposed into national law.[122]

3.3 Obligation to provide fair, proportionate and transparent procedures for energy communities' development

MS are tasked with adopting **an enabling framework to promote and facilitate the development of energy communities.** In adopting such framework, MS must ensure that ECs are subject to fair, proportionate and transparent procedures, which is a common criterion for MS to implement in their national legislation for the energy market. The purpose of including this criterion in the normative framework is thus to guarantee that this right applies to energy communities in all MS.

To this end, Article 22.4 (d) of the REDII and Article 16.1 (e) of the IEMD indicate that MS shall ensure that RECs and CECs are subject to fair, proportionate and transparent procedures and charges, including registration and licensing procedures as well as cost-reflective network charges.[123] Furthermore, Article 22.4 (d) of the REDII includes an obligation for other relevant charges, levies and taxes to be implemented "in an adequate, fair and balanced way, to the overall cost sharing of the system in line with a transparent cost-benefit analysis of distributed energy sources developed by the national competent authorities".[124] The "fair, proportionate and transparent procedures" identified in Article 22.4 of the REDII and Article 16.1 (e) of the IEMD apply to licensing, administration fees, publishing requirements of tariffs and bank guarantees that RECs and CECs need to comply with to operate. These requirements are in place to avoid proliferation of distribution networks of energy, as indicated by the CEER Report.[125] However, Recital 43 of the REDII clarifies that **any unnecessary burden** imposed on renewable energy projects can be contrary to the principle of fair, proportionate and transparent procedures. The excess of such procedures and requirements can be considered as an unnecessary burden, and a barrier for the operations of RECs and CECs. To tackle this challenge, MS might choose to reduce or at least simplify the procedures, such as by granting exemptions or reducing administrative complexity.

3.4 Obligation to protect consumer rights

The REDII and the IEMD include several provisions aimed at safeguarding consumer rights to transparency, information and contractual certainty. According to Article 16.1 (c) of the IEMD and Article 22.1 of the REDII, participants in ECs maintain their rights as household customers. Article 10 of the Electricity Market Directive lists all the basic contractual rights that suppliers have to guarantee when contracting with final customers, including their rights to information, to transparent invoicing, ability to compare energy prices and to dispute settlement. **As suppliers of energy, energy communities carry**

122 Hannoset, A., et al., supra note 22, p. 9.

123 REDII, art. 22.4(d); IEMD, art. 16.1(e).

124 REDII, art. 22.4(d).

125 CEER, (2019). 'Regulatory Aspects of Self-Consumption and Energy Communities', Customers and Retail Markets and Distribution Systems Working Groups, CEER Report, p. 28.

this responsibility towards their members. Additionally, consumers have a right to a supplier of last resort, and vulnerable households need to be protected.

Regarding the **right to information and transparent invoicing**, Article 18 of the REDII indicates that MS shall ensure to all relevant actors the access to information on support measures available to them. Recital 57 of the REDII adds that such information must include knowledge on how electricity is allocated to final customers. Article 10.3 of the IEMD on basic contractual rights lists all the rights final customers are entitled to by contract from their supplier. Article 10 also covers customers' rights to transparent information on prices and tariffs, payment options, general terms and conditions as well as alternative measures to disconnection for consumers facing disconnection.

It may be challenging for energy communities to provide such a high and comprehensive level of information, as they do not function exactly in the same way as a professional supplier. One way to alleviate the potential difficulty for energy communities to ensure ample provision of information to final customers and safeguard their right to be informed by contract on all applicable fees, maintenance charges and associated products or services, is the requirement for MS to ensure the deployment of smart metering systems[126] into their territories, which provide more information than conventional meters. [127] Smart metering systems "shall accurately measure actual electricity consumption and shall be capable of providing to final customers information on actual time of use."[128] In addition, this provision could help final consumers to pay a fair share of grid costs. It could also prevent non-members from bearing charges of RECs or CECs' use of grid. Another risk for consumer rights for members of an energy community is the potential lack of **dispute settlement** services able to process consumer queries.[129] The IEMD addresses this issue in relation to CECs by requiring MS to ensure consumer protection, information, and dispute settlement mechanisms to the final consumer.[130]

That being said, current challenges of protecting consumer rights go beyond enforcing transparency of information and dispute settlement mechanisms. For example, the CEER Report indicates that small entities acting as Distribution System Operators[131] (DSOs) may present more difficulties in ensuring quality services.[132] Therefore, if an energy community acts as grid operator, it is likely to face challenges in guaranteeing advanced solutions and technological services as larger DSOs are able to do nowadays.[133] Furthermore, the European Commission has identified several instances where energy consumers may be at risk. These include when they attempt to interact with the market, switch providers, or access clear information on charges.[134]

126 Article 2.23 of the IEMD defines a smart metering system as "an electronic system that is capable of measuring electricity fed into the grid or electricity consumed from the grid, providing more information than a conventional meter, and that is capable of transmitting and receiving data for information, monitoring and control purposes, using a form of electronic communication."

127 IEMD, art. 19.2.

128 IEMD, art. 20(a).

129 European Commission, supra note 69.

130 IEMD, art. 28.1.

131 Article 2.29 of the IEMD defines DSOs as a "natural or legal person who is responsible for operating, ensuring the maintenance of and, if necessary, developing the distribution system in a given area and, where applicable, its interconnections with other systems, and for ensuring the ling-term ability of the system to meet reasonable demands for the distribution of electricity".

132 CEER., supra note 126, p. 34, 36.

133 Ibid., p. 36.

134 European Commission. (2016). 'Evaluation Report covering the Evaluation of the EU's regulatory framework for electricity market design and consumer protection in the fields of electricity and gas'. Commission Staff Working Document, p. 5.

3.5 Obligation to foster aggregation methods

Having become a widely acknowledged method for the energy market in the EU, 'aggregation' has been included in the regulatory framework for RECs and CECs (as well as in the broader CEP). In accordance with Article 2.18 of the IEMD, aggregation indicates "a function performed by a natural or legal person who combines multiple customer loads or generated electricity for sale, purchase or auction in any electricity market".[135] In other words, aggregation is a method where actors of the electricity market merge multiple loads of electricity to reduce costs of acquisition for the final customers and to increase the demand of the electricity produced by CECs.[136]

Furthermore, Article 22.2 (c) of the REDII and Article 16.3 (a) of the IEMD respectively indicate that **energy communities need to be able to access all sustainable energy markets and electricity markets, either directly or through aggregation in a non-discriminatory manner**. In this regard, MS are required to enable and foster aggregation methods of energy communities[137] based on their demand-response participation as final customers.[138] In addition, Article 22.2 (c) of the REDII and Article 16.3 (b) of the IEMD state that aggregation on demand-response should be carried out without discriminatory manners in all markets[139] and based on the technical capabilities of the energy community members.[140] Burger indicates that aggregation methods can be beneficial to consumers because of their ability to optimise demand and supply behaviour and to decrease the acquisition cost of energy.[141] However, despite the legal and regulatory provisions guaranteeing the use of aggregation for energy communities in the REDII and the IEMD, there are technical and market barriers that aggregators still face. For instance, unclarity on future market designs, differences in subsidy schemes depending on location and strict or unclear metering requirements may create uncertainty on the aggregator's side.[142] These factors could eventually affect the performance, effectiveness and development of energy communities acting as aggregators.

3.6 Obligation to implement support schemes

Article 2.5 of the REDII defines 'support scheme' as any instrument, scheme or mechanism applied in MS to promote the use of RES by reducing energy-costs, increasing the price at which it can be sold, and by increasing renewable energy obligations or the volume of the energy purchased (e.g. tax exemptions or reductions, and tax refunds).[143] Article 4 of the REDII indicates **the obligation for MS to incorporate in their support schemes incentives to promote the integration of RES as providers of energy for the electricity market, including grid integration costs and stability**.[144] The IEMD gives relevance to incentive regimes when addressing the sharing of electricity by CECs. Whereas recital 46 of the IEMD

135 IEMD, art. 2.18.

136 Burger, S., Chaves-Avila, J.P., Batlle, C. & Perez-Arriaga, I. (2016). 'The Value of Aggregators in Electricity Systems'. MIT Center for Energy and Environmental Policy Research. CEEPR WP 2016-001, p. 3.

137 IEMD, art. 16.2.a; REDII, art. 22.2.c. In the case of the RECs providing aggregation is subject to the provisions relevant for such activities; REDII, art. 22.4.b.

138 IEMD, art. 17.1; REDII, art. 22.2.c.

139 REDII, art. 22.2.c; IEMD, art. 17.2.

140 IEMD, art. 17.2.

141 Burger, S., et al., supra note 136, p. 3.

142 De Clercq, S. & Guerrero, C. (2019) 'Lessons Learnt and Best Practices' Best practices and implementation of innovative business models for renewable energy aggregators. BestRES Project, p. 11, 40, 49.

143 REDII, art. 2.5.

144 REDII, art 4.

indicates that electricity sharing should not be affected by the collection of tariffs and levies related to electricity flows,[145] Article 16.3 (f) of the IEMD states that MS have the responsibility to ensure CECs are available to share electricity produced by the community "without prejudice to applicable network charges, tariffs and levies".[146]

As indicated in Article 4 of the REDII and Article 16.3 (f) of the IEMD, MS are required to comply with the implementation of these support schemes at national level. Accordingly, several MS have created supportive policies for RES, mainly consisting of economic incentives such as support schemes that provide fixed remuneration for production of renewable energy, tax incentives for individuals who invest, grant-to-loan programmes and rules that give citizens rights to buy into local renewable projects.[147]

However, comparative studies on the EU energy market suggest that, while generally incentive regimes in MS are a tool to promote energy communities, they may in some cases pose a risk for energy communities, particularly when they undergo changes or do not reflect properly the needs of energy communities.[148] When subsidies are no longer in connection with energy communities' needs, whether it is because they have not been reviewed, reinstated or they have been replaced, support schemes can then create uncertainty to the detriment of RECs and CECs.[149] MS should tackle this uncertainty, as it is a key action to achieve an effective scheme. Incentive schemes might therefore be designed and updated to cover the current needs of energy communities.

3.7 Obligation to enable cross-border participation

In 2016, the European Commission identified persisting barriers to cross-border trade related to state interventions into the electricity market, insufficient competition on the energy market and cross-border insecurity of electricity supply.[150] However, the new normative framework regulating energy communities could be able to address these notable barriers by facilitating cross-border electricity flows, customer participation including demand response, investments in flexible energy generation and energy storage.[151] **The regulatory framework for energy communities recognises the importance of cross-border participation**, which "can, under certain conditions, help Member States achieve the Union target more cost-efficiently [...] and is also the natural corollary to the development of the Union renewable energy policy [...]".[152]

Article 22.6 of the REDII and Article 16.2 (a) of the IEMD confer to MS the possibility of enabling cross-border participation of RECs and CECs, respectively. In the case of RECs, Article 22.6 of the REDII also states that MS shall consider the specificities of RECs when designing support schemes in order to enable them to compete for support on an equal footing with other market participants. Furthermore, Article 59.1 (b) of the IEMD and Article 15.1 of the ACER Regulation indicate that ACER, in close cooperation with the regulatory authority, shall monitor the potential barriers to cross-border trade that

145 IEMD, recital 46.

146 IEMD, art. 16.3 (f).

147 Roberts, J. (2020). 'Power to the People? Implications of the Clean Energy Package for the Role of Community Ownership in Europe's Energy Transition', RECIEL, p. 234.

148 Tounquet, F., et al., supra note 10, p.14-32; Meeus, L. & Nouicer, A. (2018). 'The EU Clean Energy package' Technical Report. European University Institute and Robert Schuman Centre for Advanced Studies, p.73; Romero-Rubio, C. & de Andrés Diaz, J.R. (2015). 'Sustainable energy communities: a study contrasting Spain and Germany' Energy Policy 85, p.406; Community Energy England & Community Energy Wales. (2018). 'State of the Sector Report 2018' Annual Review of Community Energy in England, Wales and Northern Ireland, p. 10.

149 Community Energy England & Community Energy Wales, supra note 149, p. 42.

150 European Commission, supra note 69, p. 5-7.

151 Erbach, G. (2019). 'Common rules for the internal electricity market'. Briefing, EU Legislation in Progress. European Parliament Research Service, p.5.

152 REDII, recital 23.

CECs may encounter. In conclusion, MS are obliged to cooperate with energy communities and with ACER when issues of cross-border relevance are concerned to reduce the identified barriers in the energy market.[153]

3.8 Obligation to provide tools to facilitate access to finance, information and capacity-building support (RECs)

The original Renewable Energy Directive 2009/28/EC (RED) established an overall policy for the production and promotion of RES in the EU.[154] While it addressed the information and training gap of the heating and cooling sector of the energy market,[155] it does not mention renewable energy communities nor financial support mechanisms made available by MS. Building on the RED, the REDII introduces specific obligations for MS to provide RECs with "**tools to facilitate access to finance and information**"[156] and to ensure that "**regulatory and capacity-building support** is provided to public authorities in enabling and setting up renewable energy communities, and in helping authorities to participate directly." [157]

Regarding access to financing, MS have put in place several measures to facilitate RECs' access to finance for their projects, including guarantee, or grant-to-loan schemes that RECs can access to fund pre-construction work (e.g., feasibility studies).[158] Regarding access to information, Article 18.1 of the REDII indicates that MS need to ensure that information on support measures is made available to all relevant actors of the renewable energy market,[159] which may encompass technical and financial information or guidance on administrative requirements.[160] Article 18.6 states that MS shall develop these support measures with the support of the respective regional authorities when appropriate.[161] Another support measure for REC stakeholders is to offer them practical education on how to operate a RES project. Furthermore, as well as the obligation to provide regulatory and capacity-building support to public authorities in enabling and setting up RECs, Article 22.4(h) also states that MS shall help these authorities to participate directly in the activities of energy communities.[162]

3.9 Obligation to ensure third-party access (CECs)

Third-party access in the internal market in electricity is a matter regulated by the EU since 2003.[163] Through the IEMD, the EU regulatory framework has broadened the scope of third-party access to include provisions applicable to CECs. In particular, Article 6.1 of the IEMD indicates that **MS shall**

153 Ibid., p. 8.

154 Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC (Text with EEA relevance).

155 Ibid., recital 49 and Article 1.

156 REDII, art. 22.4(g).

157 REDII, art. 22.4(h).

158 REScoop, supra note 40, p.50.

159 The same article identifies REC as a 'relevant actor' of the RES market.

160 REDII, recital 26.

161 REDII, art. 18.6.

162 Ibid.

163 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.

ensure the implementation of a third-party access system to manage transmission and distribution networks, which CECs can benefit from.[164] Article 6.1 further clarifies that the access to the system will be based on published tariffs "applicable to all customers and applied objectively and without discrimination between system users".[165]

Furthermore, Article 6.3 of the IEMD states that these measures also apply to CECs that manage distribution networks.[166] According to Article 16.4 of the IEMD, "Member States may decide to grant citizen energy communities the right to manage distribution networks in their area of operation [...]". If that right is granted, MS will need to ensure that CECs are able "to conclude an agreement on the operation of their network with the relevant distribution system operator or transmission system operator to which their network is connected"[167] and "are subject to appropriate network charges".[168] Furthermore, MS shall guarantee that CECs with rights to manage distribution networks "do not discriminate or harm customers who remain connected to the distribution system".[169] The access to the current transmission and distribution systems of the EU by CECs is relevant to stimulate the development of this type of energy community in local areas.

3.10 Conclusions on MS responsibilities and challenges under the current EU regulatory framework for the development of energy communities

Under the current EU regulatory framework, MS are tasked with adopting an enabling framework for energy communities. For both RECs and CECs, the framework established by MS must guarantee non-discrimination among actors in the energy market; identify existing barriers to the development of energy communities; ensure fair, proportionate and transparent procedures and charges; protect consumer rights; enable aggregation methods and implement support schemes as well as enable cross-border participation. Furthermore, MS are required to abide to obligations that are specific to the type of energy community under consideration, namely the obligation to provide tools to facilitate access to finance, information, and capacity-building support (specifically for RECs), and the obligation to ensure third-party access (specifically for CECs). Through these obligations, MS contribute to energy communities' development and guarantee that they are able to operate across the market on a level playing field.[170]

Regarding MS obligations, this chapter also identified some uncertainties, potential barriers and challenges for the implementation of the regulatory framework within MS. While the above-mentioned obligations promise to provide a strong boost to the development of energy communities, "it is still an open question whether Member States will take their commitments on energy communities seriously". [171] Furthermore, not all of the identified barriers are adequately addressed by the current regulatory instruments: while the regulatory framework for energy communities is no longer in its infancy, legislation is still "undergoing continuous change".[172] As the CEER Report concludes, RECs and CECs are not new or unknown entities, but are "likely to become more prevalent and more diverse following their formal recognition in the new EU policy framework".[173] In other words, since the normative framework does not tackle all the identified challenges, these will have to eventually be

164 IEMD, art. 6.1.

165 Ibid.

166 IEMD, art. 6.3, recital 47.

167 IEMD, art. 16.4(a).

168 IEMD, art. 16.4(b).

169 IEMD, art. 16.4(c).

170 Roberts, J., supra note 61, p. 243.

171 Ibid., p. 242.

172 Hannoset, A., et al., supra note 22, p. 9.

173 CEER., supra note 126, p. 35.

addressed by MS and/or the EU, as energy communities are increasingly regarded as key to the overall success of the Energy Transition.[174]

4. CHALLENGES FOR THE IMPLEMENTATION OF ENERGY COMMUNITIES: THE EU LEGAL FRAMEWORK'S RESPONSE

This chapter illustrates some of the main challenges that MS may face when implementing the existing EU regulatory framework for energy communities and analyses the way the regulatory framework provides a response to those challenges. Based on literature analysis and discussions with pilot energy community organisers,[175] several barriers remain for implementing the European Framework for energy communities within MS. The identified challenges have been grouped along the following seven partly overlapping issues:

1. Financial viability of the market design
2. High administrative burden and complexity of starting up and running a REC or CEC
3. Membership volatility
4. Risk of limited access to participation and lack of fair and transparent procedures
5. DSO status
6. Access to grids and direct lines
7. Consumer information and contractual rights

4.1 Ensuring financial viability

The financial viability of energy communities highly depends on the costs associated with their planning, establishment and operationalization, as well as the financial support of investors (such as members or shareholders) to secure sufficient funding. The planning, establishment and operationalization of energy communities entail high costs related to the financing of the infrastructure itself, administrative costs (including starting-up costs) or even costs associated with the feasibility studies to determine the viability of the community.[176] Additionally, as they are still in their early stages and therefore their financial viability is not guaranteed, energy communities face difficulties in identifying and securing funding streams, as funding is either not available or difficult to find. **Even prior to financing the infrastructure itself, energy communities need funding to conduct feasibility studies, deal with project management and with the administrative requirements associated with the development of the project**.[177] Thus, access to pre-construction and development funding is critical for the establishment and success of energy communities.[178]

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174 Lowitzsch, J. et al., supra note 108.

175 Participating companies and NGOs implementing pilot sites within the ROLECs project

176 See e.g., Energy cities. (2019). 'How cities can back renewable energy communities' Guidelines for local and regional policy makers. Renewable Networking Platform (RNP), p. 26.; see also CEER., supra note 126, pp. 30-31.

177 Ibid., p. 27.

178 Community Energy England & Community Energy Wales, supra note 149. The report also adds that "Without funding for feasibility studies, communities are unable to ascertain whether potential projects are feasible or worthwhile. Communities usually require outside expertise to guide them through this process and on to planning permission and financing stages, which

High costs and the difficulties to secure funding can put the success of energy communities at risk.[179] Several economic tools can contribute to ensure the financial viability of energy communities at early stages and during their operational period.[180] The most common are the subsidies or cost exemptions.

The EU legal framework addresses the financial viability of energy communities through the REDII and IEMD directives. Regarding RECs, while the REDII requires that MS ensure the stability of financial support mechanisms[181], provide tools to facilitate access to finance and information[182], and ensure that RECs can participate in available support schemes[183], it leaves the design of financial support mechanisms for RECs to the discretion of MS, who are not obliged but "should be allowed to take measures"[184] including on financial support. Regarding CECs, the IEMD focuses on ensuring that "citizen energy communities are allowed to operate on the market on a level playing field"[185] and states that while CECs should not face a higher threshold than other players on the market, they are subject to the same rights and obligations applicable to other actors.[186] Overall, both instruments leave to MS' discretion to design and implement financial instruments and support measures for the development of energy communities.

4.1.1 Financial viability of RECs

Recital 12 of the REDII highlights the necessity to establish a financial framework for renewable energy projects to facilitate investments, including through the use of financial instruments, which are defined as a measure of financial support to address one or more specific policy objectives of the Union.[187] Accordingly, one of the primary objectives of the Directive is to lay down "rules on financial support for electricity from renewable sources [and] on self-consumption of such electricity"[188], which is a general objective that applies to energy communities. To this end, Article 6 of the REDII sets a series of obligations for ensuring the **stability of financial support**, as well as additional obligations to consider financial issues.

Article 6.1 of the REDII specifically requires that MS do not revise the support granted to RES projects in a way that can undermine the economic viability of projects that have already benefitted from support. Additionally, the Directive requires MS to publish a long-term schedule anticipating the expected allocation of support, covering at least the following five years, or, in the case of budgetary planning constraints, the following three years, which shall be updated on an annual basis.[189] Moreover, MS are

is often not possible without early stage grant funding" (p. 26).

179 See e.g., Community Energy England & Community Energy Wales, supra note 149, p. 44.

180 See e.g., Hanna, R. (2017). 'Community Renewable Innovation Lab'. Energy Transition Platform Policy Briefing, p. 14; Energy cities, supra note 180, p. 26; Gancheva, M., O'Brien, N., Crook, N. & Monteiro, C. (2018). 'Models of Local Energy Ownership and the Role of Local Energy Communities in Energy Transition in Europe'. Commission for the Environment, Climate Change and Energy. European Committee of the Regions, p. 24; Hannoset et al., supra note 22, p. 31; Wigand, F. (2017). 'RES auctions – Insights for the Energy Community' Presentation at IRENA – Energy Community Workshop on Renewable Energy Auctions, p. 6.

181 REDII, art. 6.

182 REDII, at. 22.4(g).

183 REDII, recital 26.

184 Ibid.

185 IEMD, recital 46.

186 Ibid.

187 See the complete definition of financial instrument in point (29) of Article 2 of the Regulation (EU, Euratom) 2018/1046 of the European Parliament and of the Council of 18 July 2018 on the financial rules applicable to the general budget of the Union.

188 REDII, art. 1.

189 REDII, art. 6.3.

required to assess, at least every five years, the effectiveness of their support schemes for electricity from RES.[190]

While the measures provided in Article 6 focus on guaranteeing stability of financial support, they are primarily aimed at guaranteeing the stability once the support is granted, not before. That said, the **access to the support schemes** is also regulated under the REDII. To ensure the viability of RECs, Recital 23 of the REDII highlights that MS should guarantee that they access support schemes on an equal footing with large participants. To that end, MS should be allowed to take measures, such as providing information, providing technical and financial support, reducing administrative requirements or allowing RECs to be remunerated through direct support where they comply with requirements of small installations.[191] These measures are formulated in relevant obligations throughout the text of the Directive, including the provisions of Article 4, which apply generally to energy communities supporting renewable sources, and Article 22, which has a specific focus on RECs.

Article 4 deals with support schemes for energy from RES, which provides MS the possibility to apply support schemes to achieve the Union' goal of the reduction of final consumption of energy by at least 32% by 2030.[192] In this regard, the Directive requires that the support schemes from RES provide incentives for the integration from RES in the electricity market in a market-based and market-responsive way[193] and that these support schemes are designed so as to maximise the integration of electricity from RES in the electricity market and maximising the market revenues of renewable energy producers.[194] In addition, MS are required to ensure that support is granted in an open, transparent, non-discriminatory and cost-effective manner.

Furthermore, Article 22 of the REDII, which focuses specifically on the regulation of RECs, includes the following relevant provisions which may contribute to the financial viability of these energy communities:

- Article 22.2 (c) requires MS to ensure that **RECs are entitled to access markets in a non-discriminatory manner**.
- Article 22.4 (g) requires MS to provide an **enabling framework to promote and facilitate the development of RECs, and to ensure that tools to facilitate access to finance and information are available**.
- Article 22.7 of the REDII requires that "without prejudice to Articles 107 and 108 TFEU, **Member States shall take into account specificities of renewable energy communities when designing support schemes** in order to allow them to compete for support on an equal footing with other market participants."

The combination of the highlighted provisions may contribute to the financial viability of RECs. However, these measures are meant to encourage MS to design support schemes for RECs, the success of which however highly depends on how these measures are implemented at a national and/or local level. These measures are also meant to address the challenge of administrative burden, which is interlinked with the challenge of financial viability.

190 REDII, art. 6.4.

191 REDII, recital 26.

192 REDII, art. 4.1.

193 REDII, art. 4.2.

194 REDII, art. 4.3.

4.1.2 Financial viability of CECs

While the IEMD does not specifically address the financing of CECs, it does establish a series of relevant provisions and obligations that can indirectly affect their financial viability. For instance, Article 9.1 of the IEMD requires MS to ensure a competitive market for electricity. To this end, MS are entitled to impose obligations related to price of supplies or energy from RES, among other issues.[195] This is complemented by Article 9.3, which indicates that when a MS grants financial compensation or other forms of compensation and exclusive rights for the fulfilment of the previously mentioned obligations, this shall be done in a non-discriminatory and transparent way.[196] This provision is also applicable to CECs, when they are granted financial compensations or rights.

Additionally, Article 16 of the IEMD, which specifically focuses on CECs, specifies relevant provisions that address the financial viability of CECs. Article 16.1 (e) requires MS to provide a framework ensuring that **CECs "are subject to non-discriminatory, fair, proportionate and transparent procedures and charges**, including with respect to registration and licensing, and to transparent, non-discriminatory and cost- reflective network charges in accordance with Article 18 of Regulation (EU) 2019/943, ensuring that they contribute in an adequate and balanced way to the overall cost sharing of the system." Although this is a general obligation, this provision entails that MS have to provide a framework that ensures that the procedures and charges involving CECs are non-discriminatory.

Article 16.3(c) states that MS shall ensure that **CECs "are financially responsible for the imbalances they cause in the electricity system**; to that extent they shall be balance responsible parties or shall delegate their balancing responsibility in accordance with Article 5 of Regulation (EU) 2019/943." This provision has to be considered along with Article 17.3(d), which requires MS to ensure that their framework includes "an obligation on market participants engaged in aggregation to be financially responsible for the imbalances that they cause in the electricity system". In this case, Article 17.3 requires MS to ensure that market participants, including those who participate in the CECs, are financially responsible for the imbalances that they can cause in the electricity system when they are engaged in aggregation. In this regard, CECs that choose to take on the role of Supplier usually take over balance responsibility, unless they delegate this to a third party, which may increase their financial uncertainty. [197]

Article 16.4 provides MS with the possibility to grant CECs the right to manage distribution networks in their area of operation and to establish relevant procedures, without prejudice to Chapter IV of the IEMD, dealing with DSOs, or rules applying to DSOs. However, this should be done in accordance with the three specific conditions included in Article 16.4. While this provision may grant CECs more financial independence, it may also represent a risk for the stability of energy communities.

4.2 Administrative burden, licenses and permits

The high administrative load that energy communities need to manage may turn out to be a disincentive, making it hard for them to get off the ground. In addition to the operation licences and supply and production permits needed to establish an energy community, **several other factors make the development and running of energy communities an administrative burden**.[198] These include the initial feasibility

195 REDII, art. 9.2.

196 REDII, art. 9.3.

197 USEF White Paper (2019). 'Energy and Flexibility Services for Citizens Energy Communities', p.7.

198 Savaresi, A., supra note 8, p. 23; Pause, F. & Wizinger, S. (2016). 'Technical, legal and regulatory barriers for optimal deployment and operations of current business models' Best practices and implementation of innovative business models for renewable energy aggregators. BestRES Project, pp. 48- 49; Community Energy England & Community Energy Wales, supra

and pre-qualification studies; applications for pre-finance and developing a business plan; the complex technical setup (e.g. identifying renewable energy source location, installation and connecting to the grid); drawing up of membership agreements; ensuring consumer rights and managing the operations of a CEC or a REC. Addressing all these factors is time consuming, financially taxing and it requires actors with specialised skills (know-how of the rules, business models, processes and technology).[199]

Additionally, managing the ongoing operations of an energy community can be burdensome, including maintaining up to date with all permits and administrative aspects. In general, the more an energy community takes over in terms of roles, e.g. that of a DSO and of owning and managing distribution networks, the more burdensome the administrative management could be expected as their business model will be more complex and different from the more self-consumption based energy communities.[200] Onerous procedures may discriminate particularly against small market participants, with lower financial and human resource capacity when tasked with activities usually performed by large energy companies.[201]

4.2.1 Provisions addressing administrative barriers for energy communities

MS are given significant leeway in defining procedures and requirements to address administrative barriers. In general, both the REDII and the IEMD recognise that this administrative burden is an issue for the establishment of energy communities. For instance, Recital 50 of the REDII states that "the lack of transparent rules and coordination between the different authorisation bodies has been shown to hinder the deployment of energy from renewable sources" and recital 51 adds that "lengthy administrative procedures constitute a major administrative barrier and are costly [...]." Recital 42 of the IEMD also mentions that "legal and commercial barriers exist, […], and administrative burdens, such as the need for consumers who self-generate electricity and sell it to the system to comply with the requirements for suppliers, etc."[202]

The directives also recognise the need for proactive measures to facilitate the growth of these communities. According to Recital 26 of the REDII, "**Member States should be allowed to take measures, such as providing information, providing technical and financial support, reducing administrative requirements**, including community-focused bidding criteria, creating tailored bidding windows for renewable energy communities, or allowing renewable energy communities to be remunerated through direct support where they comply with requirements of small installations." The IEMD highlights the need for fairness and level playing field in its recital 43: "This Directive aims to recognise certain categories of citizen energy initiatives at the Union level as 'citizen energy communities', in order to **provide them with an enabling framework, fair treatment, a level playing field and a well-defined catalogue of rights and obligations**." While both directives address the issue, the IEMD has a stronger focus on creating a level playing field and fairness to remove administrative burdens. In particular, the two instruments address the administrative burden of legal procedures and permits in three main ways, namely by (a) removing excessive and unnecessary administrative burden; (b) calling for fair, objective,

note 149, p. 27, 34 & 36.

199 Campos, I. Et al., supra note 49, pp. 4,5 &7; PASSAGE project. (2019). Info – Pack: establishment of an energy community: A short guide for citizens, local stakeholders, public actors and investors for the development of energy communities in the straits of Otranto / Corfu. the European Regional Development Fund (ERDF) p. 12-15; Pause, F. & Wizinger, S., supra note 206, p. 58.

200 CEER., supra note 126, p. 20, 33 & 34.

201 Gancheva, M., et al., supra note 184, p. 57.

202 Recital 66 also states: "Where a closed distribution system is used to ensure the optimal efficiency of an integrated supply that requires specific operational standards, or where a closed distribution system is maintained primarily for the use of the owner of the system, it should be possible to exempt the distribution system operator from obligations which would constitute an unnecessary administrative burden because of the particular nature of the relationship between the distribution system operator and the system users."

proportionate and transparent procedures; and (c) providing capacity building and tools for energy communities, thereby enabling and fostering participation (only for RECs).

4.2.2 Removing excessive and unnecessary administrative burden

Regarding RECs, Article 22.4 (a) indicates that an enabling framework for RECs shall also ensure that **"unjustified regulatory and administrative barriers to renewable energy communities are removed."** However, the provision does not provide further details on how these barriers shall be removed. Article 15.1 on administrative procedures, regulations and codes, requires MS at a general level to streamline, expedite procedures to appropriate administrative level and furthermore to ensure they are needed before requiring them. This article does not specifically mention RECs but does refer to plants, producers and distribution networks for renewable energy. Furthermore, according to Article 15.1 (d), "simplified and less burdensome authorisation procedures, including a simple-notification procedure are established for decentralised devices, and for producing and storing energy from renewable sources."

Concerning CECs, only Article 59.1 (z) of the IEMD on the duties and powers of the regulatory authorities specifically assigns to the national regulatory authority the duty of "**monitoring the removal of unjustified obstacles to and restrictions on the development of consumption of self-generated electricity and citizen energy communities**". More specifically, with regard to communication technology and sharing of electricity, Recital 46 of the IEMD indicates that "Citizen energy communities should not face regulatory restrictions when they apply existing or future information and communications technologies to share electricity produced using generation assets within the citizen energy community among their members or shareholders based on market principles, for example by offsetting the energy component of members or shareholders using the generation available within the community, even over the public network, provided that both metering points belong to the community."

4.2.3 Requiring fair, objective, proportionate and transparent procedures

Closely linked to the removal of unjustified and unnecessary burden, the directives specifically require MS to ensure fair, objective, proportionate, non-discriminatory and transparent procedures. This may entail the reduction of or simplification of the licencing process for smaller actors and citizen initiatives. Both directives also state the importance of ensuring transparency for applicants.
Regarding RECs, Article 22.4 (d) of the REDII indicates that MS shall ensure that RECs are entitled to "fair, proportionate and transparent procedures, including registration and licensing procedures." In addition, under Article 15.1 MS are required to ensure that rules concerning authorisations, licences and certificates are proportionate, transparent, with predictable timeframes and non-discriminatory. In order to ensure clarity of information provision regarding requirements, Article 16 of the REDII requires that MS set up sort of a 'one stop shop' in the form of a contact point, that provides a manual of procedures, and where a single contact point is able to "guide [an applicant] through and facilitate the entire administrative permit application and granting process." [203] It specifically states that the "applicant shall not be required to contact more than one contact point for the entire process." This also includes "the relevant administrative permits to build, repower and operate plants for the production of energy from renewable sources and assets necessary for their connection to the grid." Article 16.2 requires transparency of these contact points on permit application processes and Article 16.5 addresses settlement of disputes concerning the permit-granting process, ensuring that "applicants have easy access to simple procedures."

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203 "The permit-granting process shall cover the relevant administrative permits to build, repower and operate plants for the production of energy from renewable sources and assets necessary for their connection to the grid. The permit-granting process shall comprise all procedures from the acknowledgment of the receipt of the application to the transmission of the outcome of the procedure" REDII, Article 16.1.

Regarding CECs, Article 16.1 (e) of the IEMD requires MS to provide an enabling framework, ensuring that they "are subject to non-discriminatory, fair, proportionate and transparent procedures and charges, including with respect to registration and licensing." Under Article 16.3 (a), the Directive requires that CECs "are able to access all electricity markets, either directly or through aggregation, in a non-discriminatory manner" and that energy communities are "treated in a non-discriminatory and proportionate manner with regard to their activities, rights and obligations as final customers, producers, suppliers, distribution system operators or market participants engaged in aggregation" (Article 16.3 (b). Moreover, to provide CECs with ample access to the market and options for larger operations, the IEMD ensures CECs' rights to manage their own distribution networks. Accordingly, Article 16.4 ensures CECs' rights to "conclude an agreement on the operation of their network with the relevant distribution system operator or transmission system operator to which their network is connected."

4.2.4 Providing capacity-building and support mechanisms for energy communities

Whereas among the goals of the IEMD is to provide CECs "with an enabling framework, fair treatment, a level playing field and a well-defined catalogue of rights and obligations"[204], only the REDII defines specific requirements for provision of capacity building and support mechanisms for public authorities in setting up and running RECs. Article 22.4 (g) indicates that "tools to facilitate access to finance and information" shall be ensured. This means energy communities should be able to easily identify what their options are for financing their projects as well as obtain general information on how to get started and maintain a REC. To that end, Article 22.4 (h) aims to ensure that public authorities are provided with regulatory and capacity-building support in enabling and setting up the community and that they are helped to participate directly in RECs.

Once a REC is running, the framework aims at supporting its successful participation in the market by requiring MS to "take into account specificities of renewable energy communities when designing support schemes in order to allow them to compete for support on an equal footing with other market participants" (Article 22.7). Additionally, Article 18.1 on information and training requires MS to guarantee RECs (amongst other stakeholders) "that information on support measures is made available to all relevant actors." Article 18.6 further requires MS to develop, where appropriate, "suitable information, awareness-raising, guidance or training programmes" for the various actors including RECs. These programmes aim to provide technical and financial information as well as information on the benefits of using energy from renewable sources. They apply not only to the establishment of a REC, but also to its preparatory and operational phases. Overall, there is a significant focus on providing information and room given for specific support to be developed by MS for RECs.

4.3 Avoiding excessive membership volatility

Ensuring and maintaining the members' participation over time is essential to guarantee energy communities' viability not just in the short but also in the medium and long term. As the existence of an energy community depends, among different factors, on the funding provided by its members or shareholders, membership volatility can represent a risk for its survival if a large number of participants and/or relevant shareholders are able to abandon it at any time and without any barriers. Therefore, a robust regulatory framework that avoids excessive membership volatility by specifying the conditions of membership, including e.g., any minimum membership period, notice period or early termination fee, can contribute to ensure the survival and success of ECs and should be possible as part of their statutes and/or other internal rules.

204 IEMD, recital 43.

The current regulatory framework does not provide much guidance on how to regulate membership in energy communities. The definitions of CEC and REC indicate that the participation in energy communities is 'voluntary'.[205] However, it is not clear if voluntary participation refers to 'customers' or 'members or shareholders' or both types of actors, and this might need to be clarified by the regulators.

4.3.1 Membership volatility of CECs

To tackle membership volatility, the IEMD distinguishes between 'customers'[206] and 'members or shareholders' of energy communities. An actor can be both a 'customer' and a 'member or shareholder' of a CEC, with different rights and obligations. The IEMD establishes a framework for customers, which in addition to requiring MS to ensure that all customers are free to purchase electricity from the supplier of their choice,[207] also addresses the "consumer empowerment and protection."[208] Article 10 provides the basic contractual rights, and Article 10.3(e) indicates that final customers shall have the right to a contract with their suppliers that specifies "the duration of the contract, the conditions for renewal and termination of the contract and services […], and whether terminating the contract without charge is permitted."[209] Therefore, the customer will be able to terminate the relation with the supplier in accordance with the specifications of the contract.

Additionally, customers have the right to switch suppliers. Article 12 of the IEMD deals with the "right to switch and rules on switching-related fees". In accordance with Article 12.1, MS are required to ensure customers their right to switch suppliers while respecting contracting conditions.[210] In this case, the Directive indicates that the customer is entitled to such a switch within a maximum of three weeks from the date of the request.[211] However, MS are required to permit suppliers to charge customers contract termination fees when these costumers voluntarily terminate fixed-term, fixed-price electricity supply contracts before their maturity under certain conditions included in Article 12.1. The provisions of Article 12 also apply to customers of CECs as it is provided in the specific regulation for CECs in Article 16, which includes provisions that regulate the right of members or shareholders to leave the community. **Article 16.1(b) entitles members or shareholders to leave the CEC**, and specifically indicates that the abovementioned Article 12 of the IEMD applies. Therefore, CECs are entitled to charge members or shareholders with contract termination fees. However, **Article 16 does not specifically include provisions that impose fees or restrictions to keep members or shareholders in the CEC.**

Considering the **insufficient regulation to avoid the possible excessive membership volatility under the IEMD**, a possible solution can be found under the definition of CEC, which indicates that these communities are legal entities effectively controlled by members or shareholders.[212] In line with this definition, the constitution of the legal entity implies that this will require, under national requirements, a legal configuration (whether in the form of a cooperative, trust, foundation or any other type of legal configuration that the members decide to establish) with its own internal rules and/or statutes, in order to be controlled by its members or shareholders. The effective control would also require that the community determines rules for its functioning, including the **possibility to establish rules and/or fees**

205 IEMD, art. 2.11(a); REDII, art. 2.16(a).

206 A 'customer' "means a wholesale or final customer of electricity" (IEMD, art. 2.1) The 'wholesale customer' is defined as a "natural or legal person who purchases electricity for the purpose of resale inside or outside the system where that person is established" (IEMD, art. 2.2) while the 'final customer' is "a customer who purchases electricity for own use" (IEMD, art. 2.3).

207 IEMD, art. 4.

208 IEMD, Chapter III, articles 10-29.

209 IEMD, art. 10.3(e).

210 IEMD, art. 12.1

211 Ibid.

212 IEMD, art. 2.11.

to cease membership, which will have to comply with the applicable national law. This possibility could enable CECs to regulate the process to leave the community and avoid excessive membership volatility. Another possibility would be the **inclusion of termination fees and minimum duration membership clauses in the membership contracts**.

4.3.2 Membership volatility of RECs

Consumers, whether they are members or not of a REC, are entitled to choose the supplier and abandon the REC. The REDII recognizes in its preamble that "communities engaging in renewable self-consumption should maintain their rights as consumers, including the rights to have a contract with a supplier of their choice and to switch supplier". The REDII does not provide a detailed framework for consumer rights. However, it requires that MS ensure that renewable self-consumers are entitled to maintain their rights and obligations as final consumers.[213] In addition, Article 22, which focuses specifically on the regulation of RECs, requires MS to ensure that customers are entitled to participate in a REC while maintaining their rights or obligations as final customers.[214] Interpreting these provisions in the light of the right to switch supplier under Article 12 of the IEMD suggests that the consumer of a REC has the right to abandon the community.

An issue to clarify is whether the REDII includes provisions to guarantee or maintain the membership in the REC. Article 22 on 'renewable energy communities' **does not include provisions on how to maintain the membership in the community or restrictions that impede the members or shareholders to leave the community.** The REDII does not provide a detailed framework for RECs or their members nor does it provide regulation on how the energy community should work internally. However, a similar solution than the one provided for CECs can be applied to RECs. The concept of REC also indicates that this is a "legal entity [which] is effective[ly] controlled by shareholders or members",[215] and the REDII does not prevent to establish internal rules or statutes to regulate RECs membership volatility. Additionally, **membership contracts including termination fees and minimum duration membership clauses could also be a tool to limit membership volatility**.

According to some authors, the experience in practice with RECs shows that the national regulations for their implementation require that these communities develop statutes containing provisions related both to the effective control of the REC and its participants, to the independence and autonomy of the REC or to the representation of its participant.[216] The flexibility offered by the framework would allow for membership volatility to be also regulated in the statutes.

4.4 Fostering broad participation of 'members or shareholders' and 'customers' in energy communities

Ensuring **broad participation** in energy communities is key to guarantee that different types of actors can participate in these initiatives. While the regulatory framework ensures the participation of different 'customers', including 'vulnerable customers', the participation of 'members or shareholders' is not guaranteed or risks to be limited only to certain types of actors, e.g., people with enough financial stability. Whether and how the regulatory framework addresses the issue of broad participation as either a 'member or shareholder' or 'customer' in energy communities entails looking at the following

213 REDII, art. 21.2 (c).

214 REDII, art. 22.1.

215 REDII, art. 2.16.

216 Hannoset, A., Peeters, L. & Tuerk, A., supra note 22, p. 50.

elements: (a) the concept of 'effective control' as a defining element for the participation as a 'member or shareholder' in an energy community; (b) the identification of the eligible 'members or shareholders' of an energy community under the definitions of CEC and REC; (c) the main provisions that contribute or may contribute to foster the broad participation of 'members or shareholders' and 'customers', respectively, in ECs.

4.4.1 Effective control

Participants in energy communities can be granted different roles, including 'customer' and 'member or shareholder'. The IEMD provides a definition of different categories of customers, including amongst other 'wholesale customer'[217] and 'final customer'[218]. The regulatory framework for RECs also provides some indications of different types of 'customers', such as 'self-renewable consumer' which is defined as "a final customer operating within its premises located within confined boundaries or, where permitted by a Member State, within other premises, who generates renewable electricity for its own consumption [...]."[219] To the contrary, a definition of 'members or shareholders' is not available in the legal framework for ECs. However, the definitions of REC and CEC characterize the 'shareholder or member' as actors that 'effectively control' these communities. Thus, 'effective control' is a key element in the definitions of CEC and REC that distinguishes the 'member or shareholder' from the 'customer'. While 'effective control' is not defined in the directives, 'control', as indicated in the Article 2.56 of the IEMD is defined as "**rights, contracts or any other means** which, either separately or in combination and having regard to the considerations of fact or law involved, **confer the possibility of exercising decisive influence on an undertaking**, in particular by: (a) ownership or the right to use all or part of the assets of an undertaking; (b) rights or contracts which confer decisive influence on the composition, voting or decisions of the organs of an undertaking".[220]

The definition includes the term 'undertaking', which needs to be clarified to adequately define the concept of 'control'. The IEMD does not specifically define 'undertaking' but indicates that 'electricity undertaking' refers to "a natural or legal person who carries out at least one of the following functions: generation, transmission, distribution, aggregation, demand response, energy storage, supply or purchase of electricity, and who is responsible for the commercial, technical or maintenance tasks related to those functions, **but does not include final customers**."[221]

Considering the definitions of 'control' and 'electricity undertaking' together, it may be said that 'control' requires the existence of rights, contracts or any other means that confer the possibility of exercising decisive influence on an undertaking, which in accordance with its definition, does not include 'final customers' among the natural or legal persons who can exercise 'control'. According to the definition of 'final customer' provided in Article 2.3 of the IEMD, this is a "customer who purchases electricity for own use." However, it should be noted that the definition of 'customer' provided in Article 2.1 of the IEMD is broader, as it includes "wholesale or final costumer of electricity". The 'wholesale consumer' is defined in Article 2.2 of the IEMD as "a natural or legal person who purchases electricity for the purpose of resale inside or outside the system where that person is established". Accordingly, the 'wholesale costumer' is not excluded as a customer who can exercise 'control' if the conditions under the definition of 'control' are fulfilled.

In sum, (i) the 'shareholder or member' of an energy community must exercise 'control' to have this

217 IEMD, art. 2.2.

218 IEMD, art. 2.3.

219 REDII, art. 2.14.

220 IEMD, art. 2.56. Own emphasis.

221 IEMD, art. 2.57. Own emphasis.

role; and (ii) this 'control' requires the existence of rights, contracts or any other means that confer the possibility of exercising decisive influence on an undertaking that does not include the final customer. In addition, the definitions indicate that this 'control' has to be 'effective'. However, as previously mentioned, the directives do not clarify what 'effective' means in this context.

4.4.2 Eligible members or shareholders

The definitions of CEC and REC under the EU legal framework specifically indicate that these legal entities are "based on open and voluntary participation".[222] However, the 'effective control' of the energy communities can only be exercised by a closed list of specific actors and under certain conditions, in accordance with the definitions of these communities.

For CECS, the definition provided in the framework indicates that the eligible members or shareholders, who are entitled to exercise 'effective control' on this type of community, "shall be **natural persons, local authorities, including municipalities, or small enterprises**".[223] In this regard, recital 44 of the IEMD adds that: "decision-making powers within a citizen energy community should be limited to those members or shareholders that are not engaged in large-scale commercial activity and for which the energy sector does not constitute a primary area of economic activity".[224] Therefore, medium-size and large players are not expressively entitled to participate as a member or shareholder of a CEC and cannot hold decision-making power.

However, this does not prevent possible relations with other actors not listed in the definition. For instance, Article 16.1(d) of the IEMD indicates that relevant DSOs can 'cooperate'[225] with CECs to facilitate electricity transfers within CECs. In this regard, Article 16.4 of the IEMD provides MS with the possibility to grant CECs the right to manage distribution networks in their area of operation and establish the relevant procedures. If this right is granted, MS are required to ensure that CECs can conclude agreements on the operation of their networks with the DSO operators or transmission system operators.[226]

For RECs, the eligible shareholders or members that are entitled to exercise effective control over the community, "shall be **natural persons, local authorities, small and medium-size enterprises, including municipalities**".[227] Medium-size enterprises and large players are therefore excluded to participate as members or shareholders. However, **RECs' shareholders or members must also qualify with the 'proximity' condition**. In accordance with the definition of REC, shareholders or members shall be "located in the proximity of the renewable energy projects"[228] owned and developed by the REC. The concept of 'proximity' is not defined by the REDII, and its meaning and scope has therefore to be clarified at MS and/or local level in order to clearly determine which actors are entitled to become members or shareholders in the REC. In accordance with the previous analysis, it may be concluded that the **CECs enable a broader participation than the RECs, as the former do not include geographical limitations.**

In addition to be subject to the abovementioned conditionalities provided in the framework, the experience in practice shows, in accordance with the BRIDGE report, that "participation in energy communities is

222 REDII, art. 2.16, IEMD, art. 2.11.

223 IEMD, art. 2.11 (a).

224 IEMD, Recital 44.

225 Note that the provision uses the term 'cooperates' instead of 'participates'.

226 IEMD, art. 16.4(a).

227 REDII, art. 2.16(b).

228 REDII, art. 2.16(a).

not open to all entities due to the requirement to purchase a certain amount of shares in order to become a member".[229] Accordingly, the participation in the community as 'member or shareholder' will require the purchase of shares and/or the payment of fees.

4.4.3 Provisions to foster broad participation of 'members or shareholders'

The regulatory framework does not explicitly foster broad participation of 'members or shareholders' in CECs or RECs. The IEMD requires MS to establish a framework for CECs ensuring that these are subject to "non-discriminatory, fair, proportionate and transparent procedures and charges".[230] In similar terms, the REDII requires MS to provide a framework that ensures that RECs "are subject to fair, proportionate and transparent procedures" [231] While these provisions are focused on providing an adequate and balanced cost sharing of the system, they are not oriented to foster the broad participation of 'member or shareholders.' However, 'ensuring non-discriminatory, fair, proportionate and transparent procedures' might be interpreted as a means to guarantee the broad participation of members. This is a general obligation subject to different interpretations. Therefore, additional guidance is needed at MS and/or local level to guarantee broad participation of 'members or shareholders' in energy communities.

4.4.4 Provisions to foster broad participation of 'customers'

Both the IEMD and REDII provide more specific provisions for the regulation of 'customers', including conditions that need to be met to become a customer. For instance, under the REDII, MS are required to ensure that the participation of final customers in RECs "does not constitute their primary commercial or professional activity".[232] That said, the framework does not include specific provisions to foster broad participation of 'customers' but address it in various ways which can encourage it, namely by: requiring non-discriminatory measures; enabling the possibility to establish cross-border participation; or ensuring the inclusion of vulnerable customers. In particular, the legal framework includes **non-discriminatory measures** for the participation of customers.

Article 22.1 of the REDII requires MS to ensure that final customers "*are entitled to participate in a renewable energy community […] without being subject to unjustified or discriminatory conditions or procedures that would prevent their participation in a renewable energy community, provided that for private undertakings, their participation does not constitute their primary commercial or professional activity.*"

Article 3.4 of the IEMD, which provides rules for the non-discriminatory electricity markets, requires MS to "*ensure a level playing field where electricity undertakings are subject to transparent, proportionate and non-discriminatory rules, fees and treatment.*" However, this provision would not, in principle, apply to final customers, as the definition of 'electricity undertakings' does not include them.

The framework also provides the possibility to establish regulatory frameworks that enable **cross-border participation**, and therefore allowing for a broader participation. Article 16.2 (a) of the IEMD and Article 22.6 of the REDII confer to MS the possibility of enabling cross-border participation of CECs and RECs, respectively.

The directives also address the inclusion of **vulnerable customers**:

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229 Hannoset, A., Peeters, L. & Tuerk, A., supra note 22, p. 117.

230 IEMD, art. 2.16(e). Own emphasis.

231 REDII, art. 22.4(d). Own emphasis.

232 REDII, art. 22.1.

Article 28.1 of the IEMD requires MS to take appropriate measures to protect customers, and in particular vulnerable customers, as well as ensure that rights and obligations linked to vulnerable customers are applied. In this regard, it requires MS "*to protect customers in remote areas [as well as to] ensure high levels of consumer protection, particularly with respect to transparency regarding contractual terms and conditions, general information and dispute settlement mechanisms*".[233] The concept of 'vulnerable customer' is not specifically defined but the IEMD indicates that this "*may include income levels, the share of energy expenditure of disposable income, the energy efficiency of homes, critical dependence on electrical equipment for health reasons, age or other criteria*".[234] The vulnerable customers are not specifically addressed in the regulation for CECs. However, Article 28 on 'vulnerable customers' is a general obligation that can also be applied to CECs.

Art. 22. 4 (f) of the REDII provides specific regulation for 'vulnerable customers' in RECs and requires MS to provide an enabling framework to ensure that "*the participation in the renewable energy community is accessible to all consumers, including those in low-income or vulnerable households*". However, as some authors indicate, it does not provide explicit guidelines and measures to ensure that RECs are accessible to low-income households.[235]

All in all, the directives do not foster the broad participation of customers directly but through a series of measures that can indirectly contribute to it. While the legal framework provides some initial indications in tis provisions, fostering the broad participation of 'customers' (and also 'members and shareholders') in energy communities highly depends on the national and/or local regulators.

4.5 Energy community as a DSO

Energy communities may at times face obstacles in managing or owning access points to grids, ensuring operation, maintenance, data management and balancing within the community. Additionally, ECs may have to wait a long time before the public distribution system operator (DSO) adapts the grid to their needs. In light of this, the EU legal framework opens up the possibility for MS to **authorise ECs to take on the role of DSOs**, fully or partly, which can also impact their financial and administrative viability. On the one hand, taking on the role of a DSO and complying with all the role's obligations under the regulatory framework may prove to be too burdensome for a REC or a CEC. On the other hand, not having the option to act as a DSO may make it more difficult for ECs to get connected to the grid and access all the needed services from a public grid DSO in a timely manner.

4.5.1 Possibility to act as a DSO for RECs

According to the existing legal framework, the decision to authorise a REC or a CEC to act as a DSO is left to MS[236]. While the REDII does not specifically mention that RECs should be allowed to act as DSOs, it does not entirely exclude this option either. In Recital 71, the Directive indicates that "Measures to offset the disadvantages relating to the specific characteristics of local renewable energy communities

233 IEMD, art. 28. 1

234 Ibid.

235 Campos, I. Et al., supra note 49, p. 2.

236 *"The provisions adopted in the CEP remain relatively open to interpretation, and transposition into national law will be critical to the viability and valuable role of such communities."* CEER, supra note 126, p. 7; "*A lot will depend on the specific national rules of the RED II "enabling framework" for RECs. Here "regulatory sandboxes" as a real-world testing environment, operated for a limited period of time, could allow for the testing of incentives for RECs and the required business models to identify best practise when overcoming obstacles stemming from a lack of compatibility with the existing legal and regulatory frameworks."* Lowitzsch, J. et al., supra note 108, p.12.

in terms of size, ownership structure and the number of projects include enabling renewable energy communities to operate in the energy system and easing their market integration". Whereas this provision does not specifically indicate that RECs should be allowed to act as DSOs, it does acknowledge the need to enable RECs to operate in the energy system, and it further highlights that "renewable energy communities should be able to share between themselves energy that is produced by their community-owned installations."

Furthermore, Article 22.4 (c) states that MS shall ensure that "the relevant distribution system operator cooperates with renewable energy communities to facilitate energy transfers within renewable energy communities". Article 22.4 (e) assumes that RECs can be given the right by MS to act as DSO.[237] In particular, in establishing their enabling framework, MS must ensure non-discrimination and that "renewable energy communities are not subject to discriminatory treatment with regard to their activities, rights and obligations as final customers, producers, suppliers, **distribution system operators**, or as other market participants." However, the Directive does not mention preferential treatment for RECs acting as DSOs.

4.5.2 Possibility to act as a DSO for CECs

The IEMD is more explicit about the possibility for MS to authorise CECs to become DSOs. In its recital 46, it states that if CECs act as DSOs (while at the same time taking their other roles as final user, producer and supplier), they "should be allowed to operate on the market on a level playing field without distorting competition, and the rights and obligations applicable to the other electricity undertakings on the market should be applied to citizen energy communities in a non-discriminatory and proportionate manner." Furthermore, Article 16.2 (b) explicitly states that in their enabling framework, MS **may** give CECs the right to "own, establish, purchase or lease distribution networks and to autonomously manage them." In this case, they should adhere to the same obligations and fulfil the same responsibilities as other DSOs. [238] Therefore, similarly to the REDII, the IEMD does not assign a preferential treatment to CECs acting as DSOs.

4.5.3 Possibility of a lighter DSO status

Article 2.6 of Directive 2009/72/EC concerning common rules for the internal market in electricity defines a DSO as: "a natural or legal person responsible for operating, ensuring the maintenance of and, if necessary, developing the distribution system in a given area and, where applicable, its interconnections with other systems and for ensuring the long-term ability of the system to meet reasonable demands for the distribution of electricity."[239] With time, this role has expanded to indicate a neutral market facilitator, linking market actors and customers where non-discrimination is a key principle.[240] DSOs have multiple roles in addition to transporting electricity and gas via the distribution network. They also connect and manage meters, maintain public electricity such as streetlights, provide information and provide services as social supplier for vulnerable households.[241]

An alternative for RECs and CECs that become DSOs is to provide energy communities with an option for a **lighter, more 'limited' DSO status** that would lower their administrative burden and costs, while still allowing them to manage grids and to ensure they have all the necessary access. This option

237 Lowitzsch, J. et al., supra note 108, p.6.

238 E.DSO (2021). 'DSOs as facilitators of energy communities'. Position Paper, p. 7.

239 Directive 2009/72/EC of 13 July 2009 concerning common rules for the internal market in electricity.

240 CEER, supra note 126, p. 30; CEER. 2019. 'New Services and DSO Involvement' A CEER Conclusions Paper, p. 9.

241 Sibelga. https://www.sibelga.be/en/sibelga-group/who-are-we.

comes with the risk that energy communities may select only tasks beneficial to the community, leaving the costly and challenging responsibilities with the established public grid DSOs, or falling through the cracks. It may also lead to reduced efficiency, reduced quality of service and to the development of extra grids, duplicating assets. [242] This may also distort or shift costs or overall increase them. [243]

While the directives do not specifically provide energy communities with an option for a lower burden DSO status, they both mention proportionality and reflective costs. Whether this applies to the establishment of DSO is not explicitly mentioned. Consumers will still need to be assured their rights as for instance access to safe and reliable electricity networks, and that their data is safely managed.[244]

Regarding RECs, the REDII does not specifically mention the possibility for them to act as DSOs, nor provides information on whether they are entitled to preferential treatment or to have a lower burden DSO status. Article 22.4 (d) of the REDII requires that RECs are subject to "fair, proportionate and transparent procedures, including registration and licensing procedures, and cost-reflective network charges." However, this provision does not specifically address DSO functions, but rather focuses on general registration, licences and network charges. Article 22.4 (b) highlights that in establishing their enabling framework, MS shall ensure that RECs "that supply energy or provide aggregation **or other commercial energy services** are subject to the provisions relevant for such activities." Moreover, Article 22.4 (i) requires that "rules to secure the equal and non-discriminatory treatment of consumers that participate in the renewable energy community are in place." This indicates that if a REC act as a DSO, it will be subject to the provisions relevant for DSOs and that consumer protection needs to be guaranteed.

Regarding CECs, Recital 47 of the IEMD highlights that MS are empowered to allow CECs to become DSOs "either under the general regime or as closed distribution system operators." As already mentioned, once a CEC is granted the status of a distribution system operator, it should be treated as, and be subject to the same obligations as, a distribution system operator. Although this implies that a CEC DSO would have to fulfil all tasks and responsibilities of a fully-fledged DSO, recital 66 states that "where a closed distribution system is used to ensure the optimal efficiency of an integrated supply that requires specific operational standards, or where a closed distribution system is maintained primarily for the use of the owner of the system, it should be possible to exempt the distribution system operator from obligations which would constitute an unnecessary administrative burden." This suggests that if a CEC acts as a closed distribution system operator, it can be granted a lighter burden DSO status.

Furthermore, Article 16.3 (b) requires for CECs to be treated in a **non-discriminatory** and **proportionate** manner in the roles they take on, that is, "as final customers, producers, suppliers, distribution system operators or market participants engaged in aggregation." Paragraph 4 adds that, if a MS decides to grant CECs the status of DSOs and establishes specific procedures in that regard, a number of rights and responsibilities apply. These include the right to "conclude an agreement on the operation of their network with the relevant distribution system operator or transmission system operator to which their network is connected"[245] and the responsibility to pay "appropriate network charges at the connection points between their network and the distribution network outside the citizen energy community" as well as to "not discriminate or harm customers who remain connected to the distribution system." [246]

Moreover, Article 6 of the IEMD on third party access requires MS to ensure the implementation of a system whereby all distribution systems are accessible to third party, including networks managed by CECs. However, paragraph 2 allows any DSO to refuse access when a network "lacks the necessary

242 Tounquet, F. et al, supra note 10, pp. 87-88.

243 CEER, supra note 126, p. 30

244 Ibid., p.28.

245 IEMD, art. 16.4(a).

246 IEMD, art. 16.4(b).

capacity." A CEC running as a closed distribution system operator may benefit from a lower burden DSO status and may be subject to a series of exemptions if MS choose to, including the requirement to "procure the energy it uses to cover energy losses in its system and the non-frequency ancillary services in its system in accordance with transparent, non-discriminatory and market-based procedures"[247] and exemption from the requirement that "tariffs or the methodologies underlying their calculation, are approved [...]."[248]

4.6 Access to grids and direct lines

4.6.1 Grid access

One of the challenges faced by an energy community that not able to act as a DSO or does not choose to do so, is the risk that grid operators will not meet energy communities' needs for grid infrastructure adjustments, technical support and metering in a timely or adequate manner. Energy communities might also lack access to tools for efficient balancing or distribution. Both directives provide general provisions on public grid DSOs cooperating with energy communities, for within the community. While there is no specific provision for linking the community with the public grid, the non-discrimination principle applies for energy communities accessing electricity markets, which implies connection to the public grid.

Regarding RECSs, in accordance with Article 22.4 (c) of the REDII, MS' enabling framework shall ensure that DSOs cooperate "with renewable energy communities to facilitate energy transfers within renewable energy communities". While this provision focuses only on transfers within the community, the Directive contains additional, general measures that require DSOs to provide RECs with access to the grid within a reasonable period and with lower barriers. For instance, Article 4.2 of the REDII indicates that national support schemes for RES shall include grid integration costs and stability. In addition, Article 17.1 of the REDII states that "Member States shall establish a simple notification procedure for grid connections" and DSOs "may, within a limited period following the notification, reject the requested grid connection or propose an alternative grid connection point on justified grounds of safety concerns or technical incompatibility of the system components. In the case of a positive decision by the distribution system operator, or in the absence of a decision by the distribution system operator within one month following the notification, the installation or aggregated production unit may be connected." Both measures could help to reduce costs and delays that grid operations produce. Article 17 also indicates time limits, periods, units of measures and processes for grid connections, which can give a response to time and delay barriers as well.

Concerning CECs, Recital 65 of the IEMD highlights that DSOs should not take advantage of their position and need to provide services and access on a non-discriminatory basis. In case CECs are not a DSO or where they need to connect with and collaborate with another DSO, article 16.1 (d) requires that relevant DSOs "cooperate with citizen energy communities to facilitate electricity transfers within citizen energy communities." As for RECs, this provision focuses on transfers within the community. On more general terms, Article 31.2 of the IEMD forbids DSOs to "discriminate between system users or classes of system users, particularly in favour of its related undertakings." Finally, as already mentioned, Article 31.3 requires a DSO to provide system users with the information needed "for efficient access to, including use of, the system."

4.6.2 Direct lines

The IEMD defines a 'direct line' in Article 2.41 as "either an electricity line linking an isolated generation site with an isolated customer or **electricity line linking a producer and an electricity supply**

247 IEMD, art. 38.2(a).

248 IEMD, art. 38.2(b).

undertaking to supply directly their own premises, subsidiaries and customers." Both RECs and CECs benefit from direct lines as energy communities will be consuming the energy they produce, and electricity transported via a direct line is not subject to grid tariffs which could lower energy community costs. Direct lines are highly relevant in the absence of reduced grid tariffs for energy transfers within an energy community (for instance, concerning the transfer of electricity that is locally produced and consumed).

The REDII does not mention direct lines in relation to RECs. As RECs need to "be effectively controlled by shareholders or members that are located in the proximity of the renewable energy projects," [249] using direct lines could be a possibility. Without mention of it in the Directive, the MS would have the responsibility to decide on this issue. Contrary to the REDII, IEMD does include a definition of direct lines, although not in relation specifically to energy communities. Article 7.1 (b) states that MS shall take measures necessary to enable "all customers within their territory, individually or jointly, to be supplied through a direct line by producers and electricity supply undertakings." It is left to MS' discretion to define the criteria for authorisation of direct lines, and they may refuse direct lines in case of obstruction of the application of the provisions on public service obligations. The criteria for authorising direct lines must be objective and non-discriminatory, suggesting that CECs will not receive preferential treatment. Nonetheless, depending on MS' implementation of Article 7, CECs are subject to using direct lines when the members of a CEC have local production installations.

4.7 Consumer information and contractual rights

In accordance with the EU legal framework on energy communities, in addition to ensuring the right for customers to switch suppliers [250], the protection of vulnerable households[251] and that of universal service[252], there are several other consumer rights and quality of service aspects that energy communities must respect and provide for in order to be allowed to run. However, there remains a risk that energy community members will receive a lower level of service [253], will lack access to information and be subject to reduced certainty of contract over time. Given the complexity of the operations involved in the energy projects, a running energy community may not have the capacity to ensure that all requirements for protecting consumer rights are being met. [254]

While both the IEMD and REDII state that energy communities are subject to **proportionate procedures and charges**,[255] citizens' rights as consumers are still to be guaranteed as stipulated for general energy consumers. These include energy consumers' right to information, to transparent billing and their right to dispute settlement. Article 22.1 of the REDII requires that REC participants **maintain "their rights or obligations as final customers**, and without being subject to unjustified or discriminatory conditions or procedures." In a similar vein, Article 16.1 (c) of the IEMD refers to customer rights for CECs members, namely that they "**do not lose their rights and obligations as household customers or active customers**." These rights need to be fulfilled either by an energy supplier that supplies to the community or by the energy community itself, when acting as a supplier.

Additionally, Article 4 of the IEMD on free supplier's choice states that customers have the freedom to choose supplier, and that "all customers are free to have more than one electricity supply contract at the same time, provided that the required connection and metering points are established." This means that

249 REDII, art. 2.16(a).

250 See e.g., REDII, recital 72; IEMD, recital 45.

251 See e.g., IEMD, art. 5.2; REDII, art. 21.6(a).

252 IEMD, art. 9.

253 Pause, F. & Wizinger, S., supra note 206, p. 35.

254 Another risk identified is that non-members may end up having to cover costs of members in cases where charges to energy communities are reduced or removed due to their status, e.g. grid tariffs.

255 REDII, art. 22.4(d); IEMD, art. 16.1(e).

in principle, a member of a CEC could have both a supply contract with the community and an additional one with an external supplier.

4.7.1 Consumer information and contractual rights for RECs

Beyond defining the general rights of final customers within a REC, the REDII does not provide further details on energy consumer rights, which means that **for RECs general energy consumer rights guaranteed in EU legislation apply**, such as the right to clear information on their contract, the right of withdrawal, and on the consumption and billing based on it.[256] At the same time, the REDII includes some general provisions safeguarding consumer rights to transparency, information and contractual certainty among actors of the energy market. First, recital 57 of the REDII states that "It is important to provide information on how supported electricity is allocated to final customers." While Article 18.1 of the REDII indicates that MS shall ensure to all relevant actors are informed of support measures available to them, articles 18.5 and 18.6 focus on the obligation for MS to provide guidance and advise stakeholders including final customers "so that they are able properly to consider the optimal combination of energy from renewable sources [...]" and to develop awareness-raising and programmes to inform citizens on "how to exercise their rights as active customers."

4.7.2 Consumer information and contractual rights for CECs

Regarding CECs, Article 10 of the IEMD on basic contractual rights lists **all the rights final customers are entitled to from their supplier regarding their contract**. As a supplier, a CEC is responsible to provide this information in the contract, including on "the services provided, the service quality levels offered, as well as the time for the initial connection"[257], "the types of maintenance service offered"[258], "the duration of the contract, the conditions for renewal and termination of the contract and services"[259], as well as on compensation and refund arrangements, complaint handling and dispute settlement[260]. Article 10 also covers customers' rights to **transparent information** on prices and tariffs, payment options, general terms and conditions as well as alternative measures to disconnection for consumers facing disconnection. Furthermore, Article 10.3 (g) highlights that the supplier contract must include information on "the method of initiating an out-of-court dispute settlement procedure." Where Article 26.1 describes how MS "shall ensure that final customers have access to simple, fair, transparent, independent, effective and efficient out-of-court mechanisms for the settlement of disputes", it is the responsibility of suppliers to provide their customers with this information.

While Article 11.1 requires MS to ensure that final customers with smart meters are allowed to request a dynamic electricity contract "with at least one supplier and with every supplier that has more than 200,000 final customers", suppliers are obliged to "obtain each final customer's consent before that customer is switched to a dynamic electricity price contract."[261] This level of information may be challenging for energy communities to provide in a way comparable with other suppliers as they do not function exactly in the same way as a professional supplier. The provision does not only consider transparency, information and contractual certainty, but it also refers to managing costs allocation. In this regard, the

256 European Commission. Protecting Energy Consumers. https://ec.europa.eu/energy/topics/markets-and-consumers/energy-consumer-rights/protecting-energy-consumers_en.

257 IEMD, art. 10.3(b).

258 IEMD, art. 10.3(c).

259 IEMD, art. 10.3(e).

260 IEMD, art. 10.3(f) and 10.3(h).

261 IEMD, art. 11.3.

IEMD states that MS shall ensure the deployment of smart metering system[262] into their territories,[263] to inform final customers of the electricity consumption at actual time of use.[264] This provision could help final customers to pay a fair share of grid costs and protect them from bearing charges of RECs or CECs' use of grid.

4.8 Conclusions on challenges faced by energy communities

Energy communities are faced with several challenges in their implementation, which to a certain extent are tackled by the existing EU legal framework. Challenging aspects can be broadly related to seven issues, namely (i) the financial viability of RECs and CECs; (ii) the high administrative burden and costs faced by ECs in their development; (iii) the risk of membership volatility and (iv) of a lack of broad participation and fair and transparent procedures; (v) the possibility for ECs to act as DSOs; (vi) the possibility for ECs to access to grid lines and, finally (vii) securing consumer information and contractual rights.

First, the planning, establishment and operationalization of energy communities comes with high costs related to the financing of the infrastructure itself and energy communities also face difficulties in identifying and securing funding streams, which can put the success of energy communities at risk. Several economic tools are envisioned by the EU legal framework to contribute to ensure the financial viability of energy communities at both early stages and during their operational period, such as requiring that MS ensure the stability of their financial support mechanisms, provide tools to facilitate access to finance and information, and ensure that communities can participate in available support schemes (RECs), and on ensuring a level playing field for energy communities which are, in any case, subject to the same rights and obligations applicable to other actors (CECs). Overall, both instruments leave to MS' discretion to design and implement financial instruments and support measures for the development of energy communities.

Furthermore, several factors make the development and running of energy communities an administrative burden. The REDII and IEMD directives contain provisions addressing the removal of unnecessary and burdensome administrative barriers for ECs and highlight the importance of ensuring that ECs are subject to fair, objective, proportionate and transparent procedures, as well as providing capacity-building and support mechanisms. Another challenge is the risk that ECs are subject to membership volatility. A distinction should be made between the possibility to abandon/leave the community as consumers or as members/shareholders. The legal framework provides the possibility to abandon the community, as a consumer without penalties. While there are no specific provisions to avoid excessive membership volatility, this can be addressed in two ways: first, the text of the legal instruments does not prevent to regulate this matter under the statutes and or regulations that ECs are required to have the possibility to establish, depending on national requirements. Second, membership contracts could include termination fees and minimum duration membership clauses.

Furthermore, ECs face the challenge of securing broad participation. The 'shareholder or member' of an energy community must exercise 'control' to have this role and this 'control' requires the existence of rights, contracts or any other means that confer the possibility of exercising decisive influence on an undertaking that does not include the final customer. The eligible members or shareholders that can participate in a community are provided in the definitions of CEC and REC. Only a closed list of actors under certain circumstances can be members or shareholders. For CECs, these include natural persons, local authorities, including municipalities, or small enterprises; for RECs, these include natural persons,

262 Article 2.23 of the IEMD indicates that a smart metering system refers to "an electronic system that is capable of measuring electricity fed into the grid or electricity consumed from the grid, providing more information than a conventional meter, and that is capable of transmitting and receiving data for information, monitoring and control purposes, using a form of electronic communication."

263 IEMD, art. 19.2.

264 IEMD, art. 20(a).

local authorities, small and medium-size enterprises, including municipalities located in the proximity of the renewable energy projects owned and developed by the REC. CECs enable a broader participation that the RECs, as the former does not include geographical limitations. Overall, the frameworks for RECs and CECs provide minimums to ensure a broad participation, but it highly depends on the national and/or local regulators to foster the broad participation of 'members and shareholders' and 'customers' in energy communities.

Another possible challenge pertains to the possibility for ECs to act as DSOs. The EU legal framework opens the possibility for MS to authorise ECs to take on such role, fully or partly, which can also impact their financial and administrative viability. This entail positive and negative aspects: in taking on the role of a DSO, ECs must comply with all the role's obligations under the regulatory framework, which may prove to be too burdensome for a REC or a CEC. On the other hand, not having the option to act as a DSO may make it more difficult for ECs to get connected to the grid and access all the needed services from a public grid DSO in a timely manner. Regarding access to grids, while there is no specific provision for linking the community with the public grid, the non-discrimination principle applies for energy communities accessing electricity markets, which implies connection to the public grid.

Finally, in accordance with the EU framework, there are several consumer rights and quality of service aspects that energy communities must respect and provide for to be allowed to run. While the REDII does not provide details on energy consumer rights, which entails that for RECs general energy consumer rights guaranteed in EU legislation apply, Article 10 of the IEMD on basic contractual rights lists all the rights final customers of CECs are entitled to from their supplier regarding their contract.

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ADVANCING THE ENERGY TRANSITION

THE EUROPEAN LEGAL FRAMEWORK FOR THE IMPLEMENTATION OF ENERGY COMMUNITIES

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