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ClientEarth

Energy Communities under the Clean Energy Package

Transposition Guidance

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List of acronyms

ACER: Agency for the Cooperation of Energy Regulators

ARERA: Italian Regulatory Authority for Electricity Gas and Water

BenCom: Community Benefit Society

CARES: Community And Renewable Energy Scheme

CECs: Citizen Energy Communities

CEP: Clean Energy for All Europeans legislative package

CHP: Cogeneration and High Efficiency Heat

CIC: Community Interest Company

CJEU: Court of Justice of the European Union

CO_2: Carbon Dioxide

CPUC: California Public Utilities Commission

DER: Distributed Energy Resources

DSO: Distribution System Operator

EC: Energy Community

EDSEP: Experiments Decentralised, Sustainable Electricity Production

EEAG: Guidelines on State Aid for Environmental Protection & Energy

EIS: Enterprise Investment Scheme

EMR: Recast Electricity Market Regulation

EU: European Union

FCA: Financial Conduct Authority

FiT: Feed-in Tariff

GBP: Great Britain Pound

IEMD: Recast Electricity Market Directive

IEMR: Internal Electricity Market Regulation

IPSs: Industrial Provident Societies

kW: Kilowatt

LV: Low Voltage

MV: Medium Voltage

MW: Megawatt

NECP: National Energy and Climate Plan

NRA: National Regulatory Authority

PEC renewables:

PPP: Public-Private Partnerships

PV: Photovoltaics

RECs: Renewable Energy Communities

REDII: Renewable Energy Directive

RES: Renewable Energy Source

REV: Reforming the Energy Vision project

SEIS: Seed Enterprise Investment Scheme

SMEs: Small and Medium-sized Enterprises

TFEU: Treaty on the Functioning of the European Union

TSO: Transmission System Operator

UK: United Kingdom

USA: United States of America

VREG: Flemish Regulator of the Electricity and Gas Market

Introduction

In May 2019, the European Union (EU) institutions concluded the final legislative files for the Clean Energy for All Europeans Legislative Package (CEP), a legal framework that will help the EU meet its 2030 climate and energy objectives. With this legislative package, the EU has signalled a strong shift in the role of citizens from passive consumers to active participants in the energy transition. For the first time, EU legislation also acknowledges the role community energy ownership can play in helping the EU meet its climate and energy objectives while driving local social innovation.

In particular, the recast Directive 2018/2001 (Renewable Energy Directive II, or REDII),[1] recast Directive 2019/944 (the Internal Electricity Market Directive, or IEMD)[2] and recast Regulation 2019/943 (the Internal Electricity Market Regulation, or IEMR)[3] contain provisions that establish a supportive EU legal framework for community ownership. The CEP defines two new concepts labelled 'renewable energy communities' (RECs) and 'citizen energy communities' (CECs). It also requires Member States to secure certain rights of energy communities and establish enabling frameworks to ensure a level playing field and promote their development.

EU Member States must transpose REDII provisions into national legislation by 30 June 2021 and IEMD provisions by 31 December 2020, to ensure they are consistent with the new EU legislation.

The transposition should be seen as an opportunity for Member States to incorporate the new role of citizens and communities in their energy legislation. It is also an opportunity to update policy frameworks to support the empowerment of smaller and non-commercial market actors in the energy market as well as more decentralised renewable energy production and consumption.

However, as energy communities are a brand-new concept under EU law and in most Member States, writing these new EU rules into national legislation will be challenging. Many questions are currently being asked about what energy communities are, how to define them, what activities they should be able to participate in, how they should be regulated, and how their development should be supported. The aim of this Guidance Document is to answer these questions with the intent of facilitating effective and timely transposition of CEP provisions on RECs and CECs.

Roadmap: How to use this document

This Guidance Document covers all the core energy community provisions contained in the REDII, the IEMD and the IEMR. This document provides answers to the many legislative design questions on energy communities we have received from REScoop.eu's members, decision makers, regulators and other stakeholders from across the energy sector. In

[1] 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 (recast), OJ L 328, 21.12.2018, p 82 (REDII).
[2] 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 (recast), OJ L158, 14.6.2019, p 125 (IEMD).
[3] Regulation (EU) 2019/943 of the European Parliament and of the Council of June 2019 on the internal market for electricity (recast), OJ L 158, 14.6.2019, p 54 (IEMR).

particular, it provides an interpretation of each of the relevant provisions on RECs and CECs. It also provides recommendations for how Member States can use their discretion in interpreting the Directives to develop ambitious and robust provisions on energy communities to empower community ownership and foster local social innovation in the energy sector. Lastly, it provides many good examples of legislation and policy mechanisms that already exist to support energy communities, as well as examples of how some Member States have already approached, or are currently approaching, topics covered in the transposition process. All recommendations are presented in **bold text.**

The recommendations in this Guidance Document are presented as follows:

Chapter 1 - Definitions of Energy Communities

Chapter one covers the two main definitions that describe energy communities in the CEP: RECs and CECs. This chapter provides an overview of what energy communities are under the CEP.

Section 1.1 provides several approaches, as well as recommendations, for the types of potential legal forms Member States can make available for the formation of RECs and CECs.

Both definitions are composed of specific eligibility criteria, most of which are similar. Therefore, **Sections 1.2– 1.6** go through each element, providing an explanation of their meaning and making comparisons where they differ. These sections provide recommendations for how Member States can ensure their national definitions meet the standards set by the EU definitions in the REDII and the IEMD.

The REDII and the IEMD intend for RECs and CECs to be able to operate across the energy sector and participate in a number of different activities. Therefore, **Section 1.7** provides recommendations for how to ensure different activities of energy communities are appropriately reflected in the definitions.

Section 1.8 covers issues decision makers are likely to encounter when transposing the definitions. This includes how to ensure coherency between the REC and CEC definitions, how to avoid conflation between energy communities and other new technical concepts in the CEP (e.g. renewables self-consumption and energy sharing) in national legislation, and how to cover other local or citizen initiatives that would not qualify as a REC or CEC.

Chapter 2 - Renewable Energy Communities: The Renewable Energy Directive

Chapter two covers the core provisions for RECs, being those in Article 22 of the REDII. This chapter also covers other related provisions that are relevant for RECs.

Article 22 of the REDII establishes a number of rights and obligations for RECs. **Section 2.1** goes through each of these rights, which are granted both to the participants in RECs, as well as RECs themselves.

Article 22 requires that Member States establish an enabling framework for RECs. **Section 2.2** explains how Member States can link their national assessment of potential and barriers

for RECs, which is a separate requirement, with the development of an enabling framework. This section also provides examples of different measures that countries have taken towards issues that Member States are required to address in their enabling frameworks.

As such, Section 2 provides best practices for how to enable the growth of RECs at national level, including through removing barriers for RECs, facilitating participation in RECs by low-income and vulnerable households, capacity building tools such as access to expertise and finance, capacity building for local authorities, and ensuring equal treatment in RECs. Section 2.3 also links the ongoing monitoring of the implementation of measures in national enabling frameworks for RECs with EU reporting requirements under the Energy Union Governance Regulation.

Section 2.4 provides guidance for how Member States can design their national support schemes so that RECs are taken into account and can compete for support on a level playing field with other market actors. In particular, it looks at a number of approaches and provides examples of schemes that have been developed in different Member States.

Lastly, Sections 2.5 and 2.6 explain how other provisions in the REDII, namely on information, awareness raising, guidance and training, as well as administrative procedures, are relevant for RECs. Much of these provisions relate to providing transparency to citizens and RECs at the local level, as well as providing informational tools that can help build their capacity to realise community projects. As such, this section also provides examples of existing initiatives that have been developed in different Member States.

Chapter 3 - Citizen Energy Communities: The Internal Electricity Market Directive

Chapter three covers the core provisions for CECs being those in Article 16 of the IEMD. It is structured very similarly to chapter two on RECs. Sections 3.1 and 3.2 cover relevant provisions on rights and obligations for CECs, as well as requirements for Member States in developing enabling frameworks for CECs.

While many of the provisions for CECs are similar to those for RECs, this chapter focuses on the main differences, or additional concepts, covered in Article 16 of the IEMD. In particular, Member States have discretion to grant CECs a right to establish, own and operate distribution grids. Section 3 covers these provisions, gives a better explanation of the language, and provides guidance that decision makers can use in trying to determine whether to grant CECs this right. It also differentiates several methods for how this right could be granted, based on existing Member State experience.

Chapter 4 - Ensuring Coherence Between RECs and CECs: activities

Chapter four covers two particular activities that are likely to be of interest for both RECs and CECs: Collective self-consumption (called jointly-acting renewables self-consumption in the REDII) and energy sharing. The REDII and the IEMD provisions on RECs and CECs both contain close to identical provisions on these activities. Yet, little is known about collective self-consumption and only a few Member States have developed legislative or regulatory frameworks for this activity. For energy sharing, which is a vaguely-worded concept in the directives and is not concretely defined, there is even less national experience.

The two sections in this chapter provide interpretive guidance on the meaning of the provisions for collective self-consumption and energy sharing. They also address some of the relevant questions that decision makers are currently asking. For collective self-consumption, we provide examples and recommendations on how to define geographical scope for the activity. For energy sharing, we provide different possible concepts that could be used as a basis for developing a national model, and identify regulatory issues that will need to be tackled at the national level.

Chapter 5 - Ensuring Coherent Regulation: Market Access, a Level Playing Field, Regulating for Innovation, and Contribution to Energy System Costs

Chapter five covers provisions of the REDII and IEMD that will impact how national regulations for RECs and CECs are developed. Both directives give a right for RECs and CECs to access all suitable markets. Therefore, Section 5.1 looks at different markets that might be relevant for RECs and CECs, so that national decision makers can make sure these markets are open to them.

Section 5.2 looks at different ways that Member States can ensure a level playing field for RECs and CECs, including through differentiation, reducing or simplifying regulatory burden, allowing flexibility, and providing capacity building support. This section also provides national examples of these different approaches, along with some approaches being used in the national transposition process.

Section 5.3 looks at how regulators can deal with innovative business models and activities, for instance through regulatory sandboxes. While regulatory sandboxes are not unique to energy communities, they may be useful in dealing with specific regulatory challenges they face, as well as the testing of new technologies in collaboration with other market actors. They may also be useful for testing out new remuneration or incentives schemes for energy communities and other types of active customers.

Section 5.4 focuses on specific provision for RECs that relate to contribution to energy system costs, in particular network charges. This section provides interpretive guidance relating to principles that apply to energy system costs, such as transparency, non-discrimination, cost-reflectivity, and efficiency first. It also looks at specific provisions for particular activities, such as renewables self-consumption and energy sharing. Furthermore, this section provides examples and recommendations for how Member States can empower regulators to undertake proper cost-benefit analyses in order to weigh benefits of RECs, CECs and other active customers that operate distributed energy resources against their potential costs to the grid.

Chapter 6 - Regulatory Oversight of RECs and CECs

Chapter six covers the new duties that the CEP confers on national energy regulators with regard to RECs and CECs. In particular, national energy regulators will need to monitor the removal of unjustified obstacles to, and restrictions on, the development of CECs. In this chapter, we provide recommendations for the scope of issues that national regulators should monitor.

1. Definitions of Energy Communities

1.1. What are Energy Communities under the CEP?

The REDII and the IEMD contain a number of new definitions acknowledging the ability of citizens (individually and collectively) and communities to become active in the energy market. Below we will focus on the latter of these concepts, namely:

- 'Citizen Energy Community' (CEC) – defined in the IEMD; and
- 'Renewable Energy Community' (REC) – defined in the REDII.

Both definitions are composed of a set of criteria, or 'principles-based' elements, that must be met in order to be considered an energy community. The starting point for both definitions is the establishment of a legal entity. Furthermore, the legal entity must be organised around specific ownership and governance principles, and a non-commercial purpose. Together, the elements of both definitions convey a similar concept: a particular way to organise collective ownership around a particular energy-related activity. Therefore, some of the elements in the REC and CEC definitions are identical, or very similar.

Figure 1 The Energy Community definitions in the CEP

Article 2(16) Recast Renewable Energy Directive 'Renewable Energy Community'	Article 2(11) Recast Electricity Directive 'Citizen Energy Community'
A legal entity: 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; the shareholders or members of which are natural persons, SMEs or local authorities, including municipalities; 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.	A legal entity that: 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; 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 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;

Nevertheless, there are also material differences between the REC and CEC definitions. CECs can operate across the electricity sector and do not have a technology-specific focus, while RECs engage specifically on renewable energy. Furthermore, RECs are rooted within a local context, while no such requirements explicitly exist for CECs. In governance terms, RECs also represent a subset of CEC because RECs are generally stricter in terms of eligibility, requirements for effective control at local level, and democratic governance.

Chapter 1 proceeds as follows. First, we go through each of the different criteria in the respective REC and CEC definitions, providing an explanation of their meaning and making comparisons where they differ. We also provide existing examples of how they are reflected in national legislation, and how some Member States have already written them into national law. Second, we present several potential issues decision makers are likely to face when writing the two definitions into national law, including ensuring coherence and legal clarity between REC and CEC definitions, avoiding conflation between energy communities and other related energy citizens concepts in the CEP, and how to treat broader concepts of community energy. We also present solutions on how to overcome these issues.

1.2. Legal Form

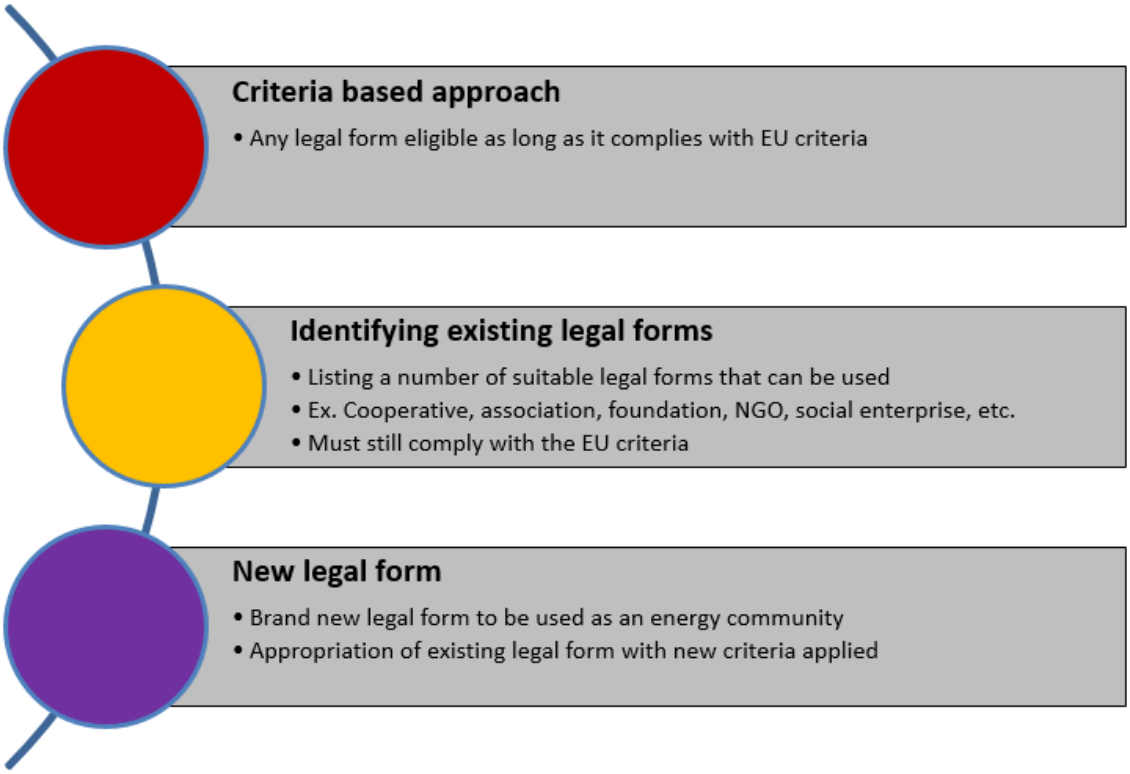
First of all, both RECs and CECs must be a legal entity. This means that a citizen initiative that does not have a legal form would not be eligible to be recognised as a REC or CEC. Member States have discretion to choose the form of legal entity that may be used to form a REC. This is confirmed in the recitals of the REDII and the IEMD.[4]

Today, there are a number of different legal forms provided for under national law that are used to set up RECs: cooperatives, different forms of partnerships, companies with a community interest, foundations, non-profit customer-owned enterprises, various forms of social enterprises, and associations (e.g. housing).[5] Certain forms of municipal or public ownership may also be considered a REC. Many of these types of legal forms may already be available for use in different Member States.

Many decision makers will ask themselves which existing legal forms from their national company law are most appropriate to be used by RECs and CECs. We have identified three approaches that Member States could consider, as illustrated below.

[4] REDII (n 1), recital 71; IEMD (n 2), recital 44.
[5] For examples of different legal entities that are currently in use for local renewable community energy initiatives in the UK, Denmark, and Germany, *see* J Roberts, F Bodman and R Rybski (2014). *Community Power: Model legal frameworks for citizen-owned renewable Energy* (ClientEarth), p 34.

Figure 2 : Three approaches for determining appropriate legal forms for energy communities



Regardless of approach, any legal forms will still need to meet the eligibility criteria contained in the EU level definitions. Furthermore, they will need to be overseen by national energy regulatory authorities, and possibly other regulatory bodies that oversee the registration of companies. This is covered in Chapter 6.

Approach 1: Identify a number of existing legal forms that can be used

First, decision makers should be aware of any legal forms already in use by existing energy communities. To ensure continuity for such initiatives, **we recommend that national legislation ensure existing energy communities are included in whichever national level definition is created**.

Where energy communities already exist, Member States should identify and choose a set of legal forms that citizen energy initiatives can assume if they want to form a REC or CEC. Using this approach, the number of legal forms should not be too open-ended. Focus should be on legal entities that will likely fit with the overall non-commercial purpose of energy communities, including *inter alia* cooperatives, social enterprises, associations, public companies, and charities. This approach might exclude more commercially-oriented legal forms such as limited companies or partnerships.

Example 1: Focus on ideal legal forms for energy communities in Member States

In Flanders, Belgium, the Energy Regulator VREG was given the task of providing recommendations to the Flemish Ministry on provisions that should be included in transposition legislation on energy communities. After a consultation, VREG has expressed the opinion that some legal forms appear more suitable for energy communities than others, namely cooperatives and non-profit associations. On the other hand, private companies and public limited companies are less suitable corporate forms. This is because they focus on profit motives, which are difficult to reconcile with the main aims of energy communities, which are to provide environmental, economic and social benefits to their members and/or the local community. On the other hand, cooperatives and non-profit associations are not motivated by profit, or they have profit as a secondary motive.

In Denmark, where there is a deep experience with community energy dating back to the 1970s, encompassing a number of different legal forms according to Danish company law. Recently, with the support of the Danish Energy Agency, a transposition handbook on energy communities in Denmark was developed in a partnership between the City of Copenhagen, Aalborg University Copenhagen and Kgs. Enghave Local Committee. The handbook communicates technical, legal and financial aspects of developing an energy community, and outlines what an action plan for establishing an energy community can look like. In particular, it establishes guidelines for the legal organisation of an energy community. It recommends cooperative societies (used by private and general housing associations, as well as heating and electricity utilities) and associations as the most appropriate legal forms. These particular forms are chosen because they limit the liability of individual members, create equality as to the position of individual members, and can perform business activities for the mutual benefit of members.

Approach 2: Adopt a single legal form

Where no energy communities exist, Member States may decide that they want to specify a single existing legal form or designate a new legal form. This approach could go a long way towards clearly identifying a REC or a CEC as a distinct energy market actor. It could also help Member States promote innovation in the cooperative or social economy. Where there are already energy communities in existence, however, this might not be a good approach, as it could disrupt existing practice.

Example 2: A dedicated legal form for energy communities in different Member States

In Greece, the 2018 law on energy communities adopts cooperatives (defined in Law 4430/2016 on Social and Solidarity Economy and the development of its actors) as the basis for its definition of energy communities. As such, the legislation uses an already existing legal entity as a basis, but tailors it towards the performance of specific activities in the energy sector for a specific purpose.

Law 4513/2018 (Energy Communities and other provisions) Article 1(1):

"The Energy Community (EC) is a cooperative with the sole purpose of promoting a social and solidarity economy as defined in Article 2(1) of law 4430/2016 and innovation in the energy sector, tackling energy poverty and promoting energy sustainability, production, storage, self-consumption, energy distribution and supply, enhancing energy self-sufficiency and security in island municipalities, and improving energy efficiency in end-use at local and regional level through the activation in the fields of Renewable Energy (RES), Cogeneration and High Efficiency Heat (CHP), rational use of energy, energy efficiency, sustainable transport, demand and production management, distribution and supply of energy."

In Sweden, RECs and CECs, while both having their own definitions, must take the legal form of an Economic Association, which is their adapted form of a cooperative. In particular:

A *citizen energy community* is an economic association whose purpose is to provide its members with environmental, economic or social benefits through:

1. production, supply or consumption of electricity;
2. aggregation according to Chapter 9 Sections 1–7 of the Electricity Act or Energy Storage;
3. providing charging points for electric vehicles, energy efficiency services or other energy services to its members.

A *renewable energy community*, is an economic association whose purpose is to conduct renewable energy activities in order to provide its members with environmental, economic or social benefits.

According to the regulator, this legal form was chosen due to the difficulty of other legal forms with allowing for entry and exit of members, the ability to promote financial interests of members without having profit as a primary motive, and the ability to carry out specific activities in the energy sector on the behalf of members.

Approach 3: Open-ended, criteria-based approach

Member States may also leave the choice of legal form completely open. Under this approach, a national level definition would simply identify criteria that any legal form must meet in order to be considered a REC or CEC. This would be the most flexible approach. However, it might also increase risk of abuse, as it would allow more commercially-oriented legal forms to be used to form energy communities. It could also complicate regulators' efforts to oversee the different types of energy communities and ensure compliance with the EU level criteria. We would therefore not recommend this approach.

Example 3: Some Member States are taking a broader approach

In their preliminary drafts of legislation, several Member States, including France, the Belgian Region of Wallonia, and Luxembourg, have elected to leave the choice of legal form open and unspecified. This has often also coincided with a copy-paste approach to the definitions which, as explained below, is not advisable.

In new legislation on RECs in Lithuania, a REC is recognized as a public institution established to sell or transfer free of charge to its shareholders the energy produced in its own energy production facilities, and supply heat produced in its energy production facilities. A public institution includes all legal forms, including cooperatives and private companies, that are officially registered for recognition as a juridical person, and administrative and tax purpose. To be eligible as a REC, the

public institution must follow certain procedures, and must be based on open and democratic membership, which are elaborated in the same Article defining the REC.

1.3. Primary purpose

Both RECs and CECs are required to have a non-commercial purpose. In this regard, the text of the definitions in the REDII and the IEMD are identical, stating that the primary purpose of RECs and CECs are "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."

1.3.1. Limiting profit and return on investment

The definitions prohibit RECs or CECs from adopting a commercial motive (i.e. selling a product or service with the primary purpose of generating profits that are then distributed to their owners/shareholders). This does not forbid energy communities from making profit, as long as the profits are reinvested into the community's activities (e.g. renewables generation projects), or are used to pursue general public interest aims such as local development, education, or solidarity programmes.

The definition does not prohibit RECs or CECs from providing a return on investment to its members. However, returns on investment and other financial benefits to members should be secondary to other general aims of the community. This would, for instance, exclude industrial or commercial consumers from setting up a REC or CEC simply to reduce energy costs, because their operational expenditures for energy contribute to their overall profit structure.

Example 4: Member States emphasising the non-commercial nature of energy communities

In Flanders, Belgium, in its advice to the Ministry, the Flemish Regulator of the Electricity and Gas Market VREG has recommended that transposition legislation state As such, they propose an energy community be a legal person "whose main purpose is to provide environmental, economic or social benefits for its associates, members, or the environment in which it operates, which has no profit motive or a profit motive secondary to the primary purpose." This is in line with its recommendation to have cooperatives as one of the few legal entities recognised as energy communities. Under a 1962 Royal Decree, in order to be recognised as a cooperative, the legal entity must limit its dividend to maximum 6%. In return the dividend is exempted from taxes up to a maximum of €640 of dividends, and the dividend is considered as a cost for the cooperative, before taxes. In turn, the Ministry has proposed that energy communities be non-profit, or alternatively, profit must be a subordinate aim to the main objective, which must be around providing ecological, economic or social benefits for its partners, members or the environment.

In recent legislation in Portugal intended to partly transpose the REDII, under the definition of a REC, it may be for profit or non-profit but its main objective should be to provide members or the local areas where it operates with environmental, economic and social benefits rather than financial profits.

In Sweden, under the regulator's recommendations to the Ministry on transposition, RECs and

CECs should both have a purpose to provide its members with environmental, economic or social benefits. The statutes of a CEC must contain information on the basics of how profit is distributed, while the statutes of a REC must contain information on the reasons for the distribution of community profits.

Member States may wish to develop further requirements in order to ensure distribution of profits remains secondary to other primary aims of an energy community. National legislation on cooperatives and other social enterprises often contains supportive rules to reinforce their non-profit nature, for instance requirements to keep a reserve fund on hand, through which a certain amount of revenues should flow. Legislation may also require reserves and assets to be commonly held, non-distributable and dedicated to the common interests of members or the general interest of the local community (e.g. education and training). Such restrictions on distribution of generated revenues are aimed to ensure creditworthiness, avoid speculation, and ensure the long-term financial sustainability and solidarity of the enterprise, as well as existing and future members.

Example 5: Rules limiting distribution of income from economic activities

In Belgium, the Ministry of Economy has recognised that cooperatives must limit their dividend to maximum 6% return on investment. In return, the dividend is exempted from taxes up to a maximum of €640, and the dividend is considered as a cost for the cooperative, before taxes.

In the UK, community interest companies (CICs), which are a type of social enterprise, are subject to a number of rules to ensure they are operating according to their stated social purpose. One of these rules is an 'asset lock', which restricts the assets of the CIC (including profits and other surpluses that result from its economic activities) from being used for purposes other than those community aims established in the CIC's statutes.

In Spain and Portugal, national legislation requires cooperatives to set up reserves for education, training and information. Some cooperatives, particularly those that focus on providing social services (i.e. 'social cooperatives') do not distribute profits to members. For instance, social solidarity cooperatives in Portugal are prohibited under national law from distributing any surplus among members, meaning that all surpluses must go towards the reserves of the cooperative.

1.3.2. Who receives the benefits generated by RECs and CECs?

The REC and CEC definitions state that the benefits generated as a result of the energy community's activities should be aimed at one of two groups: shareholders/members, or the local community.

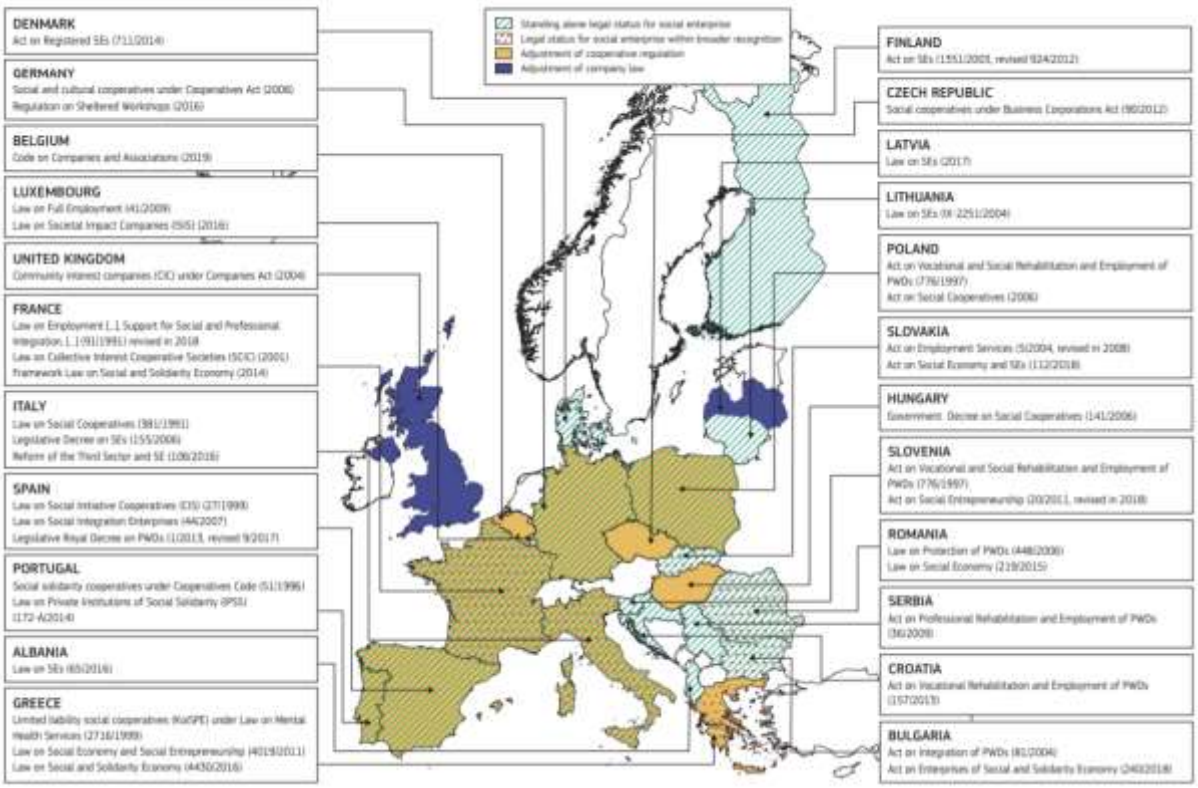
First, benefits may be provided to the shareholders or members of the energy community. This is very typical of cooperatives. For instance, national legislation usually requires that activities are performed for the mutual benefit of members, meaning provision of services or return on investment.[6] In the energy context, this could apply to the provision of energy

[6] Court of Justice of the EU (CJEU) Joined Cases C-78/08 to C-80/08 *Paint Graphos Soc coop. alr.*, ECLI:EU:C:2011:550.

supply, flexibility services, improving awareness of climate change, training on rationalising energy use, or return on investment in a locally owned wind or solar photovoltaics (PV) project.

Second, benefits may be provided to the local community in which the REC or CEC is located. This speaks to the common situation of local social enterprises, which often adopt a purpose to deliver some type of community benefit or service. According to a 2014 report by the EU Commission, 16 EU Member States have some form of legislation already recognising and regulating social enterprises.[7] Four countries in the EU (France, Greece, Italy and Poland) have adopted separate new legal forms for social enterprises by adapting the cooperative legal form. Five additional Member States (Croatia, Czech Republic, Hungary, Portugal) recognise social cooperatives in their national legislation on cooperatives. A number of other countries have created a legal status for social enterprises that can attach to a number of legal forms, provided that certain conditions are met.

Figure 3: Different legal forms of social enterprises in Europe[8]



[7] Commission (EU) (2014). *A Map of social enterprises and their eco-systems in Europe – Executive Summary*, p 10.
[8] Commission (EU) (2020). *Social Enterprises and their Ecosystems in Europe: Comparative Synthesis Report - Executive Summary*, p 14.

Example 6: Legal entities meant for a social purpose in the UK[9]

In the UK, Community Benefit Societies (BenComs) are a recognised legal entity, which is very similar to Co-operative societies. Their primary difference from Co-operative societies is that they are set up to benefit the community as a whole, rather than just the members. The profits from the BenCom's activities must be distributed to the community and only a limited return on investment may be distributed to shareholders. BenComs must also register with a regulator, the Financial Conduct Authority, and have its social objectives approved.

Community Interest Companies (CICs) are private limited companies that carry out activities fulfilling a community purpose (e.g. empowering local citizens, regenerating disadvantaged areas, improving the environment). A CIC must define its purpose when it registers, and an asset lock must be in place to ensure the CIC operates according to its aims. Dividends are allowed but they are subject to a statutory cap. CICs must also report annually to demonstrate how they are operating in line with their community interest, as well as their compliance with the asset lock.

1.3.3. Specifying economic, social and environmental benefits

The requirement that RECs and CECs focus on providing economic, environmental or social benefits is quite broad. In order to ensure legal clarity, promote social innovation and prevent abuse, **we recommend that national level definitions further specify what constitutes an environmental, economic, or social benefit**. This could be elaborated either in legislation and/or national guidance.

Examples of economic benefits:

- a return on investment to members;
- promotion of local development;
- investment in public infrastructure; and
- reduced energy bills - at least for households and other non-professional customers.

Examples of environmental benefits:

- increased production of locally developed renewable energy; and
- greenhouse gas emissions reductions (e.g. carbon dioxide,CO_2)

Examples of social benefits:

- provision of different services (e.g. energy supply, sharing, advice) to members
- investment in energy efficiency, energy poverty/solidarity initiatives
- education and training for members, school children, and/or the broader public;
- promotion of energy democracy; and
- citizen empowerment.

It is important to keep in mind that local communities often use profits from renewables generation to address identified needs of the community. Therefore, **we recommend that**

[9] Taken from Simons & Simmons (2012). Legal Structure Comparison Table Community Energy Projects.

national legislation acknowledge multiple benefits of energy communities in order to allow for different forms of social innovation.

Example 7: Social aims at the heart of the energy community definition in Greece

In Greece, the definition of energy communities focuses on specific environmental and social aims. As the basis for an energy community is a social cooperative, the aims link to the pursuit of a social and solidarity economy. However, social aims are also mixed with energy: innovation, tackling energy poverty and promoting energy sustainability, production, storage, self-consumption, energy distribution and supply, enhancing energy self-sufficiency and security in island municipalities, improving energy efficiency in end-use at local and regional level, rational use of energy, energy efficiency, sustainable transport, demand and production management, and distribution and supply of energy.

1.4. Open and voluntary participation

Both the REC and CEC definitions require that they be "based on open and voluntary participation." These are broad principles, and therefore require further specification at national level.

1.4.1. Openness

The recitals to the REDII provide some guidance as to the meaning of openness. Recital 71 states that "participation in [RECs] should be open to all potential local members based on objective, transparent and non-discriminatory criteria." This means that as long as they are accepting new members, RECs and CECs should not be able to develop arbitrary criteria or exclude eligible citizens that are willing to undertake the responsibilities of membership (e.g. exorbitant entry fees). 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.

We recommend that Member States take a contextual approach to defining openness, based on a particular activity. For instance:

- For a project to install renewables production, a REC may only need to be open to new members while it is raising finance for the projects. In this case, the REC would conduct a share offer, which would remain open until the necessary finance is raised. Then membership would be closed.
- For renewables self-consumption, energy sharing initiatives, or district heating networks, Member States should define openness based on natural geographical or technical energy system limitations that are imposed on the activity under national law.
- For other services such as supply, aggregation, EV charging, etc., RECs and CECs should remain open to all potential consumers that want to receive those services within the market or service area of the community.

Example 8: Openness to energy communities in Sweden

Under the proposed recommendations from the Swedish regulator to the Ministry, energy communities should be open. It lists instances when membership may be refused. This includes:

(a) where the applicant is unable to participate in the activities of the energy community:

- As a consumer;
- As a supplier;
- With their work; or
- By using the services of the energy community; or

(b) where the applicant does not meet requirements for becoming a member in view of the nature and scope of the activities of the energy community.

1.4.2. Voluntariness

Voluntariness should be understood as ensuring the right of members or shareholders to leave the REC or CEC. Here, it is important to understand that the relationship between a REC and its participants covers two potential relationships between the member and the community: a business-customer relationship, and the member/investor relationship.

Regarding the business-customer relationship, EU legislation is clear that consumers must be able to maintain their rights as a consumer, which includes the right to switch suppliers. Therefore, 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 (e.g. aggregator) must be respected.

Due to the fact that there is no consumer right to choose your distribution system operator, this requirement should not apply to an individual customer's relationship with the energy community where it owns or operates a network. In such situation, the customer would still have the right to switch supplier or service provider, but not the network itself.

Where the investor relationship between a REC or CEC and the member or shareholder is concerned, such relations are usually already covered by existing laws governing the process of joining or leaving companies, associations, or cooperatives. To the extent that such legal forms are used at national level for the development of energy communities, existing rules should be maintained. Furthermore, **we recommend that national legislation provide RECs and CECs the discretion to impose reasonable limitations on members' ability to dissolve their investment in the community**. This is necessary to ensure the long-term financial sustainability of the energy community.

Example 9: Two dimensions of voluntariness in energy communities

Luxembourg's draft law transposing RECs states that participation in a REC is voluntary. Furthermore, it states that in addition to ensuring members maintain their rights as final customers

(which includes the right to switch supplier), members or shareholders of RECs must have the right to leave the community with notice that cannot exceed one year. Where 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. .In Sweden, under the Regulator's recommendations for transposition to the Ministry, a REC may not, as an electricity supplier or aggregator, gas supplier, or district heating/cooling supplier, restrict its members' rights through the provisions of its statutes or otherwise. It cross-references the provisions in its national sectoral legislation that relate to these rights. The proposal also states that a member has a right to cancel their membership in the community, and that they have a right to withdraw their shares six months after their membership expires, which is understood to be the end of the fiscal year subsequent to the month after membership has been terminated.

1.5. Eligibility to be a member or shareholder

Regarding 'who' is eligible to participate in an energy community, the REC and CEC definitions diverge.

1.5.1. Eligibility to participate in RECs

The REC definition explicitly identifies which actors are eligible to participate in a REC:

- natural persons;
- SMEs; or
- local authorities, (including municipalities).

Therefore, the REDII places some limitations on companies that can participate, based on their size. Article 22(1) may also be interpreted as limiting the ability of companies that are already active in the energy sector, to participate in a REC. This provision states that:

> "Member States shall ensure that final customers, in particular household customers, 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, *provided that for private undertakings, their participation does not constitute their primary commercial or professional activity*." (emphasis added)

This provision gives Member States discretion to limit participation of companies in RECs that are already active commercially in setting up, managing and/or providing services to RECs. Member States may also forbid such companies from becoming a member or shareholder of a REC. This approach is advisable where the risk of abuse of energy communities from commercial energy companies is high. This would not prohibit a company from entering into a partnership agreement with a REC, for instance through a bilateral contractual arrangement, or from providing services to the REC. As such, even if prohibited from participating directly, commercial energy companies can still benefit economically from RECs.

Example 10: limiting participation by service providers in RECs in Luxembourg

In its draft law transposing RECs, Luxembourg defines a REC as a legal entity whose members or shareholders are natural persons, SMEs and local authorities that are network users. This definition limits eligible members or shareholders to final users (i.e. consumers) of energy. This means that an energy company would not be allowed to participate in a REC. The legislation also explicitly forbids service providers for RECs that engage in energy sharing from participating in the REC as a member.

Some new RECs have benefitted from having professional energy companies as ordinary members, which may bring valuable expertise to the community. Therefore, where the risk of abuse is low, Member States may want to allow some limited form of participation of energy companies in a REC. Regardless, **we recommend that legislative safeguards are in place to ensure energy companies cannot assume decisive decision-making powers within RECs**. For instance, definitions should limit the amount of investments or voting power (see below on effective control and autonomy) that companies can have in a REC.

Example 11: Limiting company participation in Flanders, Belgium and Sweden

In Flanders Belgium, for RECs, VREG suggests in its advice to the Ministry that only SMEs whose participation in the energy community is not its main commercial or professional activity should be eligible to participate.

In Sweden, the regulator's recommendations include a rule that the REC's statutes include a provision that traders may only be granted membership if membership is not their primary commercial or professional activity.

1.5.2. Eligibility to participate in CECs

The IEMD takes a looser approach to eligibility for CECs and does not place any limits on eligibility to become a member or shareholder. This is supported by the recitals, which state that "membership of citizen energy communities should be open to all categories of entities."[10] This means that large enterprises – not just SMEs – may become members of a CEC. Again, however, the participation of commercial energy companies in CECs must be limited to ensure they do not assume decisive control over the CEC (see below on effective control).

1.6. Effective control

Beyond eligibility to participate in an energy community, the REC and CEC definitions elaborate requirements for which members or shareholders can effectively control the community.

[10] IEMD, recital 44.

1.6.1. What does 'effective control' mean?

'Effective control' is not defined anywhere in the CEP. However, control refers generally to a situation in which a particular member or shareholder within a legal entity (company, natural person, or local authority) wields significant influence over the management or decision-making situation, based on their voting power or shares held. In other words, a company is 'controlled' if there is a group of shareholders that bring together enough shares (e.g. a majority, or a significant minority) to give that group a decisive voice in managing the company.[11]

The EU Commission has indicated that it is for Member States to define what 'effective control' means in this context, consistent with their existing statutes on corporate governance (i.e. company law).[12] This means that effective control will differ between each Member State, ranging from but not limited to:

- having majority voting rights in general meetings of the REC through the amount of capital held (e.g. 51%) or by virtue of an agreement with other members or shareholders;
- having a decisive influence in the decisions of the REC by virtue of the shares held or its position on the board;
- when it has enough voting power or shares to wield veto power against the other members or shareholders.

Example 12: France - Control under the Commercial Code

In France, the Commercial Code enumerates a number of situations where it will be assumed that someone has a controlling position within a particular enterprise:

French Commercial Code Article 233-3: control is

I.- For the purposes of Sections 2 and 4 of this Chapter, any natural or legal person shall be considered as controlling another person:

- When they directly or indirectly hold a fraction of the capital conferring on them a majority of the voting rights in the general meetings of that company;
- when they alone have a majority of the voting rights in that company under an agreement entered into with other partners or shareholders that is not contrary to the company's interest;
- when they actually determine, by the voting rights they have, the decisions in the general meetings of that company;

[11] CEOpedia. https://ceopedia.org/index.php/Controlled_company.
[12] Commission (EU) (2019). *Energy communities – implementation of the Clean Energy Package*. Power point presentation, 26 Sept 2019.

- when they are a partner or shareholder of that company and have the **power to appoint or dismiss the majority of the members of the administrative, management or supervisory bodies** of that company.

II- An entity is presumed to exercise such control when it has direct or indirect control, of a fraction of the **voting rights exceeding 40%** and **no other partner or shareholder directly or indirectly holds a fraction in the company greater than their own**.

III- For the purposes of the same sections of this chapter, **two or more persons acting in concert shall be considered as jointly controlling another** when they in fact determine the decisions taken in a general meeting.

Example 13: Flanders, Belgium

In its recommendations to the regional government of **Flanders**, Belgium, the Regulator, VREG suggests likening effective control to the ability for a specific member to "exercise decisive influence." It also references specific instances that could equate to decisive influence, or effective control, which include:

- property or usage rights to all assets of the energy community or parts thereof; or
- rights or agreements that have a decisive influence on the composition, voting behaviour or decisions of the organs of the energy community.

1.6.2. Who may exercise effective control?

The REC and CEC definitions differ in their requirements for which members or shareholders may exercise effective control of the community. For CECs, effective control is limited based on the size of the member/shareholder, while for RECs effective control is rooted within a local context. We clarify each of these concepts below.

RECs – Effective control and geographical proximity

The REC definition states that it must be "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." Proximity should be generally understood as the geographical scope in which the members or shareholders that effectively control the REC should be located (e.g. reside). Emphasis is given to geographical proximity because of its substantial added value in generating local acceptance of renewable energy projects.[13]

Member States have discretion to elaborate their own methods and criteria to define proximity. This could be based on land use planning documents, the use of municipal boundaries, or other criteria. **We recommend that Member States define proximity according to the context of the activity, due to the variety of activities that a REC could engage in**. Below are some interesting reflections by the Flemish Regulator for how to

[13] REDII, recital 70.

define effective control around geographical proximity contextually so that it fits the aims of the energy community concerned.

Example 14: Flanders, Belgium

In its guidance to the ministry on how to transpose EU provisions on energy communities, the energy regulator for **Flanders, Belgium** (VREG) makes recommendations for defining effective control for both RECs and CECs. Regarding proximity, VREG declined to specify what the scope should be. Instead, it pointed out elements which would be important to consider in choosing a proximity requirement. This includes:

- **Geographical parameter(s)** – municipal boundaries, whether or not in combination with another distance-related parameter (e.g. radius of x number of kilometres around the renewables production installation);
- **Technical/electrical parameter** – coupling shareholders or members of the REC according to the same part of the distribution network (e.g. one feeder or Low Voltage (LV)/Medium Voltage (MV) transformer);
- **Varied approach** – demarcation of proximity would be a function of the activities of the REC. Here, proximity could be broader or more limited depending on the activities undertaken by the REC;
- **Combined approach** – a combination of the above approaches based on both geographical and technical parameters (e.g. geographical parameters for local heat networks, or technical/electrical parameters for providing services around grid congestion reduction); and
- **Regional approach** – including the whole of the Flemish region as 'local'.

Below we provide considerations and recommendations for tailoring geographical proximity to specific activities, and various approaches taken so far by different Member States.

- For renewable energy generation projects:

Effective control should be determined based on the surrounding area of the project, in order to give control to the members and shareholders that are most affected by the project. For such projects, **we recommend not to define geographical proximity too narrowly – otherwise it could constitute an overly-burdensome hurdle to setting up community renewables projects**.

Example 15: Ireland, Germany, Lithuania

In **Ireland**, two definitions have been developed by the government: one for RECs, and another community-led definition, which grants special privileges for renewable generation projects in the Government's RESS 1 support scheme.

In its definition of 'Citizens' energy company', the German Renewable Energy Sources Act (EEG 2017) included criteria requiring that at least the 51 per cent of the voting rights are held by natural persons, whose main residence is in the area of the energy installation, which further guidance describes as within the municipality.

In Lithuania's new legislation partially transposing EU provisions on RECs, at least 51% of the votes in the general meeting of shareholders must be with natural persons who reside in the municipality where the installation or construction of a renewable energy production facility (or facilities) is planned, or in bordering especially recognised communities.

- For district heating, renewables self-consumption or energy sharing initiatives:

Effective control should follow the geographical limitations that are imposed on technical or legal parameters for the activity under national law. Different technical parameters for collective self-consumption can be found in section 4.1.

Example 16: Proximity based on technical parameters in Luxemburg

In Luxemburg, proximity is defined around technical boundaries. In particular, all members or shareholders must be network users whose injection points and meters are located behind the same power transformer stations of high and / or medium-low-voltage voltage operated by the distribution system operator concerned. While the Luxembourgish definition is not meant to apply only to collective self-consumption, in effect, it achieves this aim and is rather appropriate for the activity.

- For services such as supply (delivery of electricity/heat) or aggregation:

Where a broader geographical area may be concerned, effective control of the REC should be based on the scope of operation (i.e. the service area). Due to existing markets based mainly on national, and sometimes regional (e.g. Belgium) boundaries, this may also require decision makers to develop concepts of localised supply (e.g. on municipal, provincial, or regional level, depending on the national context). **For the sale/delivery of services, we recommend that Member States define geographical proximity broadly enough so that RECs are not limited in their right to engage in these activities**.

CECs – Effective control and size

CECs are not restricted by locality and effective control is based on the size of the participant. Specifically, the CEC definition in the IEMD restricts effective control to natural persons, local authorities and small and micro-enterprises.[14] This is because while CECs may often operate at a local level, they can also operate according to national markets (e.g. nationally or regionally), for instance where they act as a supplier or aggregator. Furthermore, effective control is more about the actors that participate in the CEC. The

[14] According to Article 2(8) of the REDII, a micro, small, and medium-sized enterprise (SME) is defined in Annex 2 of Commission (EU) Recommendation concerning the definition of micro, small and medium-sized enterprises, OJ L 124, 20.05.2003, p 36 (SME Recommendation).

recitals to the IEMD state that the "decision-making powers within a citizen energy community should be limited to 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."[15]

This recital text could be interpreted to mean that energy companies are prohibited from taking part in any decision making in the CEC. However, according to the definition, which is the legally operative (and binding) text on the matter, medium-sized and large companies, both inside and outside the energy sector, could take part in decision making of the CEC, as long as their decision-making role does not amount to effective control or direction of the decision-making of the CEC.

Given that there are no limits to eligibility for participation in CECs, there is potentially more risk that CECs are abused by larger commercial and industrial customers, as well as traditional commercial energy companies. Furthermore, because restrictions on effective control are based on size, it is also possible that companies will create special purpose legal vehicles that qualify as 'small', in order to get around this rule. **To limit abuse by commercial companies, we recommend that Member States adopt strong standards of effective control that restrict the ability of these actors to directly or indirectly control the community – both through their amount of investment and voting power**. Specifically, **we recommend that national standards on effective control also cover subsidiaries or linked enterprises**. Example 2.6.1 above from the French Commercial Code is instructive here. We also recommend that decision makers include the principle of autonomy in their national level definitions of CECs, which is highlighted below.

Example 17: limiting effective control for CECs in Flanders, Belgium

In **Belgium**, in its guidance to the ministry on how to transpose EU provisions on energy communities, the national regulator, VREG makes recommendations for defining effective control for both RECs and CECs. For CECs, VREG recommends that only natural persons, local authorities, non-commercial institutions (associations of co-owners, schools, universities) or small companies that are not involved in large-scale commercial activities and for whom the energy sector is not their main economic activity, should be able to exercise 'decisive influence' over the CEC. Specifically, VREG identifies what decisive influence could be, which includes holding a majority shareholding.

1.6.3. Combining effective control with eligibility to participate?

It is important to emphasise that the proximity element in the REDII does not prevent RECs from having members or shareholders outside the geographical proximity of the REC – it merely prevents those members or shareholders from exercising effective control. **If Member States want to develop a requirement that RECs must be 100% controlled locally (i.e. turn local proximity into an eligibility requirement), we recommend that this be contextualised to a specific activity such as renewables self-consumption or energy sharing**. For larger community renewables generation projects, it is often advantageous for the community if it can allow outside investors to put their money into the project.

[15] IEMD, recital 44.

Furthermore, if the REC becomes a supplier, they may want, or even be required, to supply outside of the local community. Therefore, **we recommend that such eligibility standards be flexible so that RECs can grow and expand without facing challenges regarding their existing membership**.

Example 18: Different approaches to participation vs effective control in RECs

In **Ireland**, a REC is defined with regard to traditional generation projects. They can have members or shareholders that are not local. However, effective control must reside with members that are located (in the case of SMEs or local authorities) or reside (in the case of natural persons) in the proximity of the project.

In **Sweden**, recommendations from the national regulator, Ei, suggest that all Members must be located in the vicinity of the community's renewable energy projects, although the geographical scope question has not been addressed yet.

In **Portugal**'s REC definition, membership or participation is also restricted to natural persons, local authorities and SMEs located in proximity to the REC's projects.

In **Luxemburg**'s draft legislation on RECs, all members or shareholders must be network users whose injection points and meters are located behind the same power transformer stations of high and / or medium-low-voltage voltage operated by the distribution system operator concerned.

If distribution system operators (DSOs) make changes to the topology of the distribution network, this can impact the composition of the community's eligibility criteria.

In **Flanders**, VREG suggests not to distinguish membership and control. Therefore, it recommends that all members or shareholders of the REC must fit within the definition of local proximity.

In **Sweden** under the Regulator's recommendations on transposition, only those residing or operating within or permanently related to the well-defined and limited geographical area may be accepted as members.

1.6.4. Limiting effective control to specific categories of members

Some Member States may want to ensure that a specific category of member (e.g. natural persons or local authorities) are included in energy communities. Because the energy community concepts were aimed at empowering citizens to participate and take ownership in the energy transition, for instance, decision makers may want to ensure that they have a minimum level of participation, or decisive influence in the communities that are formed. It may be possible to do this by stating specific minimum participation requirements for natural persons (e.g. 33% or 51%). Alternatively, it may be possible to write requirements in the energy communities that ensure majority control by natural persons.

Example 19: Framing effective control local citizens

In Lithuania, effective control is assigned to a specific group of members or shareholders, in this case natural persons. Specifically, at least 51 per cent of the votes in the general meeting of shareholders belong to shareholders who are natural persons residing in the municipality where the construction or installation of energy production facility (or facilities) is planned or in bordering specially recognised communities, which predate the formation of municipalities in Lithuania.

1.7. Autonomy

Autonomy goes beyond, but is still linked to, effective control. The requirement for autonomy only applies to RECs. Nevertheless, **we recommend that the autonomy principle be integrated into both REC and CEC definitions**. This is fully consistent with Member States' discretion in applying the principle of effective control in an ambitious manner. It would also promote coherency between the REC and CEC concepts.

Autonomy is not defined by the REDII. However, the recitals provide guidance on its meaning:

> "to avoid abuse and to ensure broad participation, REC 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."[16]

Under recital 71 of the REDII, autonomy is meant to ensure that the community is owned and controlled jointly by its members, rather than by a single member or a small group of members. Specifically, autonomy supports democratic internal decision making so that all members are adequately represented (regardless of their amount of investment). Autonomy is also about guaranteeing economic and financial autonomy, meaning that business partnerships with traditional market actors should not undermine the community's decision-making independence.

The principle of autonomy within the REDII derives strongly from the International Cooperative Alliance (ICA) Principles. According to this principle, single members, or a category of members (e.g. investor or for-profit non-user members) should not control the cooperative, and all members as a whole should be free to govern the cooperative without external influences, for example, through third party contracts or financing arrangements.[17]

[16] REDII, recital 71.
[17] A Fici (2012). "Cooperative Identity and the Law," *Eurisce Working Paper No 23/12* (Euricse), p 13.

Example 20: Autonomy in cooperatives

According to the International Cooperative Alliance, "Co-operatives are autonomous, self-help organisations controlled by their members. If they enter into agreements with other organisations, including governments, or raise capital from external sources, they do so on terms that ensure democratic control by their members and maintain their co-operative autonomy." According to guidance, "a co-operative is not autonomous and independent unless control rests with its members in accordance with sound, open, transparent and accountable democratic practice."

For the purposes of RECs, autonomy primarily has implications for the relationship between co-operatives and other commercial entities, such as a commercial lender providing capital to a co-operative and suppliers and others in a dominant position in the value chain.

Specifically, **autonomy is about economic and financial independence**. In primary cooperatives the amount of capital held by one member must be limited so that the principle of equality of the members in real terms is not endangered. To ensure **internal financial independence**, legislation may require the cooperative entity to keep a reserve fund on hand, through which a certain amount of revenues should flow. Furthermore, it would be relevant to place limitations to ensure that reimbursement in the case of resignation/withdrawal of a particular member, or liquidation, from the entity does not place the entity or its purposes at risk. Lastly, in connection to another related principle, democratic member control, **autonomy would suggest that individual members should not be able to control the cooperative through their investment** into the legal entity. This gives rise to the application of the 'one member one vote' principle, regardless of the amount of capital invested.

The principle of autonomy also places limits on **external financing** (from non-user members or non-member users) which could, without giving voting and/or participatory rights, limit the autonomy of the enterprise. For instance, it could be easily foreseen that non-member investors or partner companies - even an investor member with no decision-making rights - because of the size of the investment, places the identity of the cooperative at stake.

Autonomy can be reflected in national legislation on energy communities in a number of ways:

1. Legislation can limit amount of capital held by one member, or a group/class of members (e.g. for-profit enterprises), so that the collective autonomy of the REC or CEC is not endangered;

2. National legislation can place limitations on the withdrawal, or liquidation, of investment by individual members so that the REC's continued existence is not put at risk;

3. Rules can place limits on external financing (from non-user members or non-member users), which even without giving voting and/or participatory rights, could limit the autonomy of the enterprise;

4. Autonomy can be guaranteed through the implementation of democratic decision making based on the one-person-one-vote principle. The one-person-one-vote principle can also have the added benefit of ensuring equal and non-discriminatory treatment between members or shareholders in the REC, which is a requirement under Article 22(4)(i), and is covered in section 1.7 below.

We recommend that Member States adopt specific standards to ensure democratic decision making and limit outside influence of business partners or investors to ensure autonomy of RECs and CECs.

Example 21: Ensuring autonomy through limiting amount of investment and voting power in energy communities in different Member States

In Greece, under Law 4513/2018 on Energy Communities, each member, regardless of the number of cooperative shares he/she holds, participates in the general assembly by a single vote.

In Germany, the EEG limits voting power in 'Citizens' Energy Companies' which are a completely original concept. Specifically, at least 51 percent of the voting rights must be held by natural persons, and among the members, no one can hold more than 10 percent of the voting rights.

In the UK, the Co-operative and Community Benefit Societies Act sets out rules for Benefit Community Societies (BenComs) and Cooperative Societies, which are both very common legal entities used to develop community energy projects. The Act does not describe these societies, but it is for the national regulator, the Financial Conduct Authority (FCA), to establish guidance on eligibility conditions for their registration. If they are registered as a company limited by shares, individual investments are limited to £100,00. Furthermore, in its guidance for the registration, the FCA states that it expects both Co-operative Societies and BenComs to operate democratically and according to the one-person-one-vote principle.

In Ireland's Terms and Conditions for RESS 1 on energy communities, its REC definition contains provisions to ensure autonomy of the project. In particular, in addition to a general requirement that the REC be autonomous, each member or shareholder has one vote, regardless of their shareholder or membership interest.

In recent legislation in Lithuania partially transposing the REDII provisions on RECS, limits are placed on the amounts of shares that can be held in the General Assembly by other energy companies. Specifically, shareholders of the energy REC cannot hold more than 20% of the shares of another energy company. While the threshold is set very high (there is only one large energy company in Lithuania so meeting this threshold would be difficult), this provision aims to prevent REC members from investing in other energy companies and then making decisions that would benefit the energy company and not the energy community.

In Sweden, according to the Act on Economic Associations, the General Assembly may not pass resolutions aiming to give an undue advantage to a member or a third party to the disadvantage of the association or other members. Regarding member voting rights, each member has one vote, unless otherwise stated in the statutes. Investor members are allowed to join an Economic Association, but there are rules to keep them in check. First, to provide transparency, in a decision to adopt someone as an investing member, it must be stated that the member is an investing member. Second, if investing members take part in a vote and have more than one-third of the total number of votes cast in the ballot, the value of their votes shall be reduced to a total of half the total number of other votes cast. If the vote concerns a decision requiring the support of a certain proportion of the voters, the result of the vote shall be recalculated accordingly.

Member States may also want to consider the definition of autonomy that is included within the Commission's definition of SME. There, the definition describes the type of relationship that an enterprise has with another enterprise in order to distinguish between genuine and

non-genuine SMEs.[18] Specifically, an enterprise is autonomous if it is either completely independent or has one or more minority partnerships with other enterprises that are less than 25%. Therefore, if the holding of another enterprise is higher than 25%, the enterprise in question would not be autonomous. Furthermore, an SME will not be considered autonomous if:

- another enterprise is entitled to appoint or remove a majority of the administrative, management of supervisory body of the enterprise in question;
- if through a contract or memorandum or its articles of association, another enterprise can exercise dominant influence over the enterprise in question; or
- if by agreement, another enterprise may exercise sole control over a majority of shareholders' or members' voting rights in the enterprise in question[19].

There are a number of exceptions to this rule for public investment corporations, venture capital companies and business angels, universities and non-profit-making research centres, institutional investors including regional development funds, and autonomous local authorities with an annual budget of less than EUR 10 million and fewer than 5,000 inhabitants.[20] For these types of actors, as long as another enterprise ownership or control does not rise above 50%, they could still be considered an SME.

1.8. Activities

As their definitions suggest, CECs can operate across the electricity sector and do not have a technology-specific focus, while RECs engage specifically on renewable energy. One important difference between the REC and CEC definitions is that the CEC definition lists the activities that a CEC can engage in, while the REC definition does not list any activities. However, when read together with the rights contained in Article 22 of the REDII, it must be inferred that RECs can engage in a number of different activities, as long as those activities are linked with renewable energy.

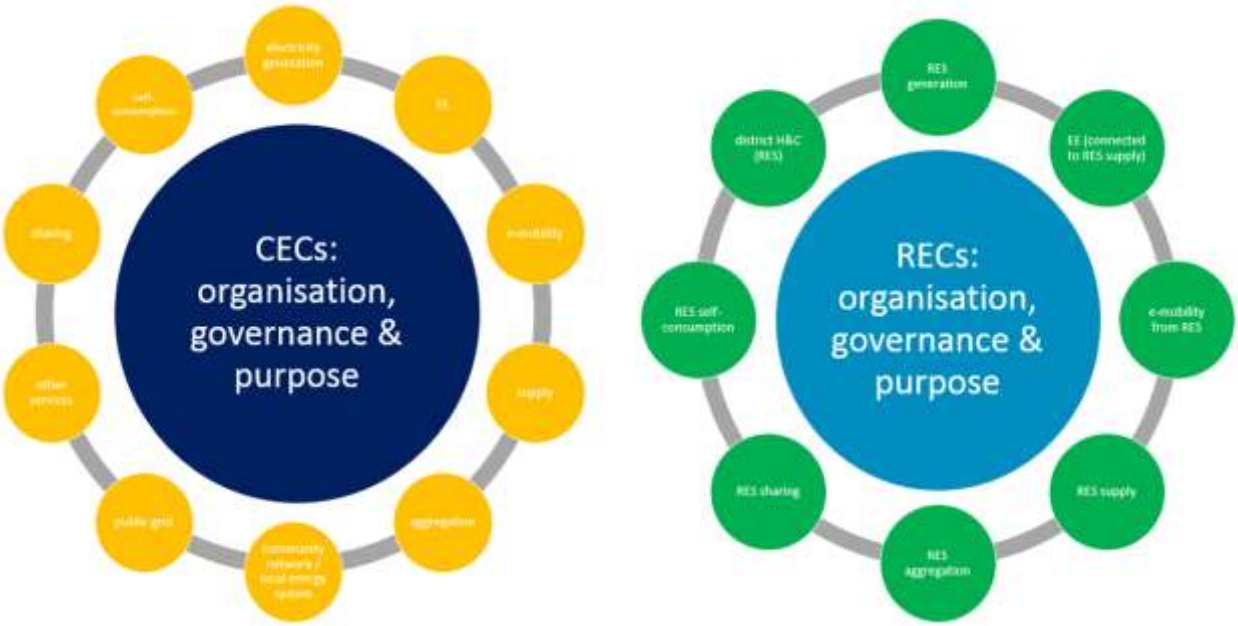
Where there is not a lot of experience with energy communities, decision makers may be led to view energy communities through a specific activity, such as self-consumption or energy sharing. However, when viewed together with the rights of energy communities, which include production, storage, consumption, sale, and supply, it is clear that energy communities must be able to engage across many different activities. This is also supported by the fact that both RECs and CECs have a right to access all suitable energy markets both directly and through aggregation.

We recommend that Member States draft definitions in a way that provides RECs and CECs with the ability to engage in a number of different activities. In the REDII in particular, it will be important to ensure that RECs are able to own and operate district heating and cooling networks – not just operate in electricity. If REC or CEC definitions are defined around only

[18] Commission (EU) (2016). *User guide to the SME Definition*, p 7.
[19] Recommendation on SMEs (n 14), Article 3(3).
[20] *Ibid*, Article 3(2)(a-d).

one or two activities, they will not be able to exercise their full rights under the CEP, which would be an infringement of EU law.

Figure 4: Energy communities have the potential to operate across the market



Example 22: Listing activities of energy communities in legislation: Greece

In Greece, Law 4513/2018 on Energy Communities contains a dedicated article on the activities that energy communities can perform. Notably these activities not only relate to the power sector, but also to heating and cooling. Under Article 4(1):

An energy community must perform one of the following activities:

- production, storage, self-consumption or sale of electrical or thermal or cooling energy from renewable energy stations;
- supply for members, with the aim of reducing energy consumption and use of conventional fuels, as well as improving efficiency;
- distribution of electricity within the Region where the energy community is headquartered;
- supply of electricity or natural gas;
- production, distribution and supply of thermal or cooling energy;
- demand management to reduce end-use of electricity and to represent producers and consumers in the electricity market (aggregation);
- development, management and exploitation of alternative fuel network and infrastructure, or management of means of sustainable transport; or
- provision of energy services.

In the same Article, a number of other activities are permitted, including attracting funds to invest in renewables and energy efficiency, prepare exploitation studies, information, training and awareness at local and regional level, and actions to address vulnerable consumers and address energy poverty.

1.9. Issues to navigate in transposing REC & CEC definitions

In order to allow citizens and communities to make the most of the new REC and CEC concepts, they will need to be clearly laid out in national legislation. However, there are a number of issues that could complicate the transposition and implementation of REC and CEC definitions. The below sections aim at addressing some of these issues, including:

- how to clarify the relationship between the REC and CEC definitions in national law;
- how to avoid conflation between CEC/REC concepts and other technical activities such as renewables self-consumption and energy sharing;
- how to address other types of citizen or consumer empowerment initiatives that may not be covered under the REC or CEC definitions.

1.9.1. Ensuring coherence between the REC and CEC definitions

It is fairly clear that both RECs and CECs are intended to reflect a particular way to organise collective ownership around different energy-related activities through a legal entity that follows ownership and governance principles and has a non-commercial purpose.

We recommend that national transposition processes aim to ensure that both REC and CEC definitions acknowledge the same core concept. However, given some differences between the two definitions around eligibility to participate and effective control, it may be difficult to ensure a coherent and clear relationship between the two definitions at national level.

In most cases where the REC and CEC definitions differ, it is because the REC definition is more strict or narrow. First, CECs do not have a technology-specific focus and can participate in any activity in the electricity sector, while RECs engage only in activities related to renewables. Second, RECs require local control, while no such requirement exists for CECs. Third, RECs are subject to more strict organisational principles than CECs, particularly in terms of eligibility, democratic decision-making (i.e. autonomy) and equal and non-discriminatory treatment of members. As such, RECs can generally be seen as a subset, or type, of CEC.

Figure 5: The Relationship between RECs and CECs

However, the 'REC is a subset of CEC' analogy is flawed in one respect: the size of enterprise that may exercise control over the energy community. As long as they are local, a medium-sized enterprise may exercise effective control over a REC, while a CEC may only be effectively controlled by micro or small enterprises (whether local or not).

Figure 6: Comparing criteria between RECs and CECs: potential coherence issue

We recommend maintaining as much coherency between the REC and CEC concepts as possible at national level. This is because the concept of community ownership should be acknowledged across the energy market and between different activities. If the REC and CEC definitions are not coherent, this could create problems for potential energy

communities that may identify as both a REC and a CEC. Given the different nature of how certain activities have evolved within existing energy communities, it is possible to have such a situation. For example, as Europe moves towards sector coupling, one could foresee that a REC that operates a district heating network, which wants to provide flexibility to the power system, might be regulated as a CEC under the IEMD.

To ensure coherency between the REC and CEC definition, first we recommend that both definitions be transposed together, for instance in the same or parallel legislative act, rather than in separate processes. This will ensure that their characteristics are both discussed together. It could also avoid of efforts to write both definitions in the law.

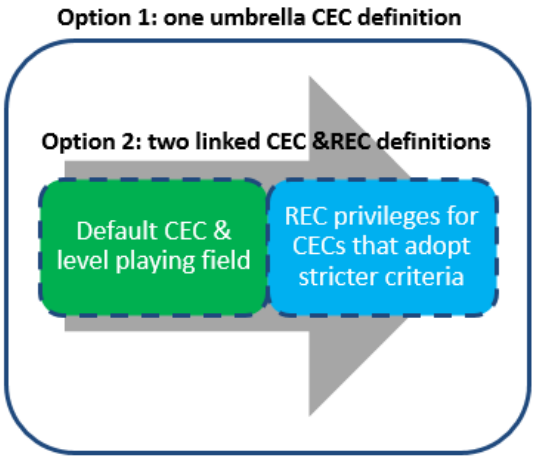
We also recommend that Member States consider legislative options for combining, or at least linking, the REC and CEC definitions. One way this might be achieved is through an 'add-on' approach. Under this approach, CECs would be adopted as an overarching umbrella definition. A REC could then be defined as a CEC that elects to adopt more stringent requirements in order to benefit from the particular privileges that are afforded to RECs under the REDII, including:

1. limiting eligibility to SMEs;
2. limiting effective control to local members; and
3. a focus on renewable energy sources (i.e. no fossil-fuel sources).

We also recommend applying the requirement of autonomy, and equal and non-discriminatory treatment, to both RECs and CECs, even though this is only required for RECs. This would strengthen the coherency between both concepts, while also ensuring legal clarity and understanding of concepts by citizens interested in setting up an energy community.

The add-on approach could be implemented using one legal definition, or two linked definitions. An advantage of this approach is that RECs and CECs would both be acknowledged as one overarching concept. In addition to preserving coherence, it would allow broad participation in CECs, and incentivise CECs to go 100% renewable and adopt stronger governance standards.

Figure 7: The 'add-on' approach: one umbrella CEC definition or two linked REC & CEC definitions



Where it is not possible to adopt a fully coherent approach, we recommend that the differences between the REC and CEC definitions be clearly explained in legislation. Furthermore, guidance should be provided to stakeholders on how to choose which form to take, including the pros and cons of each approach. Stakeholders should also clearly understand what is required from them (e.g. tailoring effective control and eligibility requirements) if they want to adopt an energy community model that is eligible to be covered under both REC and CEC definitions, so that evolution from one form to another is possible.

1.9.2. Avoiding confusion between energy communities and other activities covered in the CEP

The EU definitions represent a way to organise citizens or local stakeholders in an energy-related activity. Therefore, **we recommend that decision makers avoid definitions that conflate RECs or CECs with a specific activity such as collective renewables self-consumption or energy sharing, or a micro-grid**.

The conflation of energy communities and other activity-based concepts such as collective self-consumption and energy sharing would be problematic for two reasons. First, if RECs are narrowly defined around one activity, it would prevent them from exercising their full potential and their legal rights under the REDII, to perform other activities, such as the sale of renewable electricity on different markets, including wholesale markets. Second, it

would severely limit the ability for commercial project developers to create new and innovative models (e.g. for collective renewables self-consumption or sharing) because they would be incentivised to 'fit' within the REC definition. Again, this could aggravate tensions between community energy more broadly, and what is defined in the CEP.

To avoid conflation between energy communities and other activities, **we recommend to develop legislation for energy communities separate from activities such as renewables collective self-consumption and energy sharing, for instance in standalone chapters, sections, or even legislative acts**. If an additional definition for 'community renewables self-consumption' or 'community energy sharing', etc. is desired, this should be developed as a

sub-definition that allows RECs or CECs to participate in those activities under legislative and regulatory frameworks that are being developed.

Example 23: Separating legislation for different concepts: Greece

In Greece, legislation on (virtual) collective renewables self-consumption and energy communities was developed as two distinct concepts. Virtual Net Metering was first introduced in 2017. Initially, only Public Authorities and Farmer associations were eligible to apply for developing such projects.

Separately, Law 4513/2018 Energy Communities was finalised in 2018. This law does not provide specific detailed provisions on the activities of energy communities per se. Instead, it specifies what is an energy community, rules for investment and membership of different actors, internal decision making, objectives and activities of energy communities, and special financial incentives for energy communities. Through Articles 4 and 11, which detail the objectives and incentives for energy communities respectively, energy communities are allowed to participate in, and benefit from, the activity of collective virtual net metering.

1.9.3. Distinguishing RECs and CECs from other types of citizen & consumer empowerment initiatives in the CEP

For good reason, many citizens and businesses are interested in the opportunities that energy communities provide. However, the REC and CEC frameworks were primarily intended to benefit citizens, small businesses and local authorities – not larger utilities and energy service companies, or larger industrial and commercial consumers. Furthermore, developing a democratically governed and non-commercial REC or CEC may not be for everyone.

This does not suggest that the CEP does not empower these other market actors to become active or benefit commercially from empowering customers. The IEMD explicitly states that "All customer groups (industrial, commercial and households) should have access to the electricity markets to trade their flexibility and self-generated electricity."[21] Furthermore, it states that "the definition of citizens energy communities does not prevent the existence of other citizen initiatives such as those stemming from private law agreements."[22]

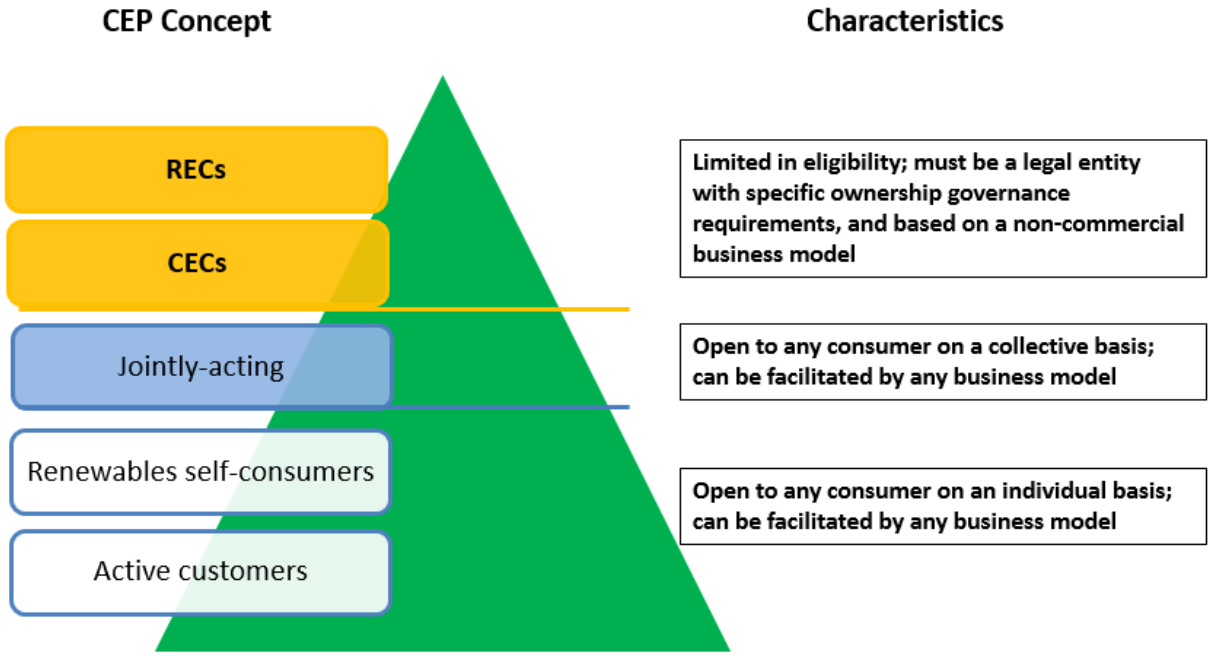
There are a number of other opportunities provided by CEP, for instance on active customers, individual renewables self-consumers, and jointly acting renewables self-consumers. These new concepts provide opportunity for all market actors, including commercial and non-commercial business models. However, in order for initiatives focusing on citizen and consumer ownership to be effective, national legislation and policy need to clearly differentiate energy communities from other concepts.

The transposition of RECs and CECs will already be a complex task. Therefore, **we recommend that rather than developing broader concepts or definitions of energy communities, Member States focus for now on transposing what is required under the REDII and IEMD. We recommend that if Member States want to create special frameworks to**

[21] IEMD, recital 39.
[22] IEMD, recital 44.

accommodate industrial or commercial customers, these should be developed as initiatives for (joint) renewables self-consumers and active customers – not RECs or CECs.

Figure 8: Different levels of citizen and consumer empowerment in the CEP



Where there is an interest to develop broader 'energy community' concepts, we recommend that such concepts and their supportive frameworks be clearly separate and distinguishable from frameworks developed for RECs and CECs. If more liberal energy community approaches are combined with receiving special privileges envisioned for RECs and CECs under the CEP (in particular under the REDII for RECs) new market distortions, particularly against citizen ownership initiatives, could be created. This would give rise to legal challenges on the grounds that the overly-broad definitions adopted by Member States, combined with certain privileges, amount to violations of competition law. Lastly, depending on how many energy community definitions proliferate at the national level, it may be difficult for average citizens or consumers to differentiate between various offers, eroding trust in the entire concept.

1.9.4. Distinguishing RECs and CECs from co-ownership

The REC and CEC definitions, as well as their provisions, only encompass a portion of the entire community energy spectrum. Therefore, the CEP does not explicitly cover more commercial developer-led or crowd funding initiatives that provide lower levels of investment, or no ownership or control to citizens. As the CEP only focuses on RECs and CECs as legal entities, it also does not cover their potential relationships with other commercial actors, for instance co-ownership through bilateral contracts.

Policies to support local investment and participation in commercially developed renewable energy projects are a good way to get citizens involved in the energy transition.

However, from a policy perspective, they should not replace, or confuse, policies to promote community ownership and control as it is framed in the CEP. Therefore, **we recommend that member States develop co-ownership measures or policies separately and additional to the transposition of supportive provisions for RECs and CECs**.

1.9.5. Distinguishing RECs and CECs from public utilities

There is a question whether traditional municipally-owned utilities (e.g. Stadtwerke in Germany) would be considered an energy community. Just as with every business model, one would need to look at the ownership and governance of the legal entity used to make sure it complies with the EU definitions. This would most likely exclude utilities that are completely owned by the municipality or through public-private partnerships (PPPs) with other commercial utilities. This is because they would not meet criteria around open participation and/or effective control. Nevertheless, where public utilities have opened themselves up (either through projects or through direct participation in the utility) to direct financial participation and shared decision making by local residents, they may be eligible to be a REC or CEC.

2. Renewable energy communities – The Renewable Energy Directive

This section highlights the main provisions in the REDII that pertain to RECs. Article 22 of the REDII contains the core provisions on RECs. Nevertheless, there are also provisions that pertain to RECs in Article 4 (renewables support schemes), Article 15 (administrative procedures, regulations and codes), Article 16 (organisation and duration of the permit-granting process), and Article 18 (information and training).

We have organized these articles into different thematic sections:

- Overview of rights and obligations for RECs (section 2.1);
- Enabling frameworks for RECs (section 2.2);
- Member State reporting requirements on RECs (section 2.3);
- Support schemes for RECs - Art. 22 and Art. 4 (section 2.4)
- Information, awareness raising, guidance, and training (section 2.5); and
- Local planning and administrative procedures for RECs projects (section 2.6).

It is important to note the difference between provisions in Article 22 that are framed as rights versus the enabling frameworks. Rights are automatic and enforceable in law. Once the Member State has put in place measures to ensure these rights can be exercised, they should be stronger and easier to defend than the policies and measures in enabling frameworks.

2.1. Rights and obligations - Art. 22(1)(2)

The first two paragraphs of Article 22 contain rights for both consumers and RECs themselves. Paragraph 1 provides all final consumers, in particular household consumers, with a right to participate in a REC. Furthermore, Member States must ensure that there are no unjustified or discriminatory conditions or procedures in place that would prevent participation in a REC. As mentioned above in section 1.5.1, Article 22(1) limits the extent to which private undertakings can benefit from the right to participate in a REC.

Member States must ensure that members or shareholders maintain their consumer rights and obligations.

Article 22(2) provides RECs with the right to participate in specific activities related to renewable energy. This includes production, (self-)consumption, and sale of renewable energy. It also explicitly includes sharing of renewable energy produced by the community among the members or shareholders.

With regard to 'sale', specific mention is made to entering into power purchase agreements (PPAs). Nevertheless, national legislation should also cover other methods of selling renewable electricity, for instance on the wholesale market and to members/customers by setting up a fully licensed retail supplier. It could also include peer-to-peer trading. This broader interpretation of sale and supply is supported by the fact that Paragraph 2 also requires Member States to ensure RECs can access all suitable markets both directly and through aggregation. Furthermore, it would support the REC's right to share renewable energy production with its members or shareholders.

Finally, this right also applies to heating and cooling, not just electricity. Distribution is not mentioned in Article 22 of the REDII. As such, the Directive does not provide RECs with a right to manage district heating and cooling networks. However, customer-owned district heating networks have been a very successful way for local communities to decarbonise heating, lowers prices and add local value. Therefore, **we recommend that Member States explicitly provide in their legislation that RECs are allowed to generate and supply heating and cooling from renewables, as well as set up and operate customer-owned district heating and cooling networks**.

2.2. Enabling framework - Art. 22(3)(4)

The REDII requires that Member States provide an enabling framework to promote and facilitate the development of RECs. This means that Member States must put in place an effective legal and administrative framework that creates a favourable environment for the creation and the functioning of RECs. The purpose is not only to promote a level playing field for RECs but also to promote and facilitate their development by mitigating the practical and regulatory challenges they face in trying to access the market.

The REDII lists a minimum set of issues that this enabling framework must address. However, Member States are also free to set additional rules and provisions aiming to promote and facilitate the development of RECs. Indeed, it may be useful and necessary in some Member States to do more than requested by the REDII to allow RECs to grow at national level.

The minimum requirements of the enabling framework have to be set in national laws of Member States. However, these are obligations of result and Member States have discretion to decide which policies and measures they put in place to reach this result. Some of the approaches, therefore, may not require a legislative approach.

In particular, Member States' enabling framework must address the following:

> *(a) unjustified regulatory and administrative barriers to RECs are removed;*
>
> *(b) RECs that supply energy or provide aggregation or other commercial energy services are subject to the provisions relevant for such activities;*
>
> *(c) the relevant distribution system operator cooperates with RECs to facilitate energy transfers within RECs;*
>
> *(d) RECs are subject to fair, proportionate and transparent procedures, including registration and licensing procedures, and cost-reflective network charges, as well as relevant charges, levies and taxes, ensuring that they contribute, 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;

(e) RECs 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;

(f) the participation in the RECs is accessible to all consumers, including those in low-income or vulnerable households;

(g) tools to facilitate access to finance and information are available;

(h) regulatory and capacity-building support is provided to public authorities in enabling and setting up RECs, and in helping authorities to participate directly;

(i) rules to secure the equal and non-discriminatory treatment of consumers that participate in the renewable energy community are in place.

Below, we provide a step-wise approach that Member States should take in developing their enabling frameworks and how to address removal of unjustified barriers to the development of RECs. Subsequently, we provide some best practice examples that can help Member States meet their requirements relating to some of the specific elements of the enabling framework, namely:

- ensuring that participation in RECs is accessible to low-income or vulnerable households;
- tools to access finance;
- providing regulatory and capacity-building support to public authorities so they can support RECs, as well as participate directly; and
- ensuring equal and non-discriminatory treatment of customers that participate in a REC.

Other elements of the enabling framework are discussed in other parts of this paper, i.e. non-discriminatory treatment of RECs and fair, proportionate and transparent procedures and cost-reflective network charges (section 2.2.5), tools to access information (section 2.5) and the cooperation by the relevant distribution system operator (DSO) with RECs to facilitate energy transfers within RECs (section 4.2.2).

2.2.1. A step-wise approach towards assessing and removing barriers for RECs

Article 22(3) of the REDII requires Member States to carry out an assessment of the existing barriers and potential of development of RECs in their territories.

The REDII does not indicate when the assessment of barriers should be conducted. Therefore, it can be logically assumed that it should be completed before the transposition deadline of 30 June 2021. However, the assessment of barriers and potential should be conducted before a Member State establishes what will be in the enabling framework. That way, the enabling framework can address issues that have been identified in the

assessment, for instance the removal of unjustified barriers. Before removing barriers, decision makers must know what these barriers are.

Therefore, we recommend that before setting an enabling framework, Member State undertake a national assessment of the existing unjustified barriers to, and the potential of renewable self-consumption in, their territories.

Example 24: The UK's assessment of barriers to community energy

A good practice example of a country strategic approach towards development of energy communities is the UK 'Community Energy Strategy'.[23] The Strategy was developed based on a previous assessment of barriers and potentials (a 'Call for Evidence') which ran for 3 months (from June to August 2013). The Call for Evidence gathered relevant information from a wide range of actors involved and potentially involved in the energy community activities (communities, individuals, local authorities and organisations in the private, public and voluntary sectors) and identified barriers that energy communities were facing. The Strategy looked at how to remove these barriers and proposed actions necessary for realising the potential of community energy. The final strategy laid out the Government's perceived benefits of community energy, an existing state of play, an explanation of various ways that community energy organizes through local partnerships, and a statement of the capacity barriers community energy projects face. Importantly, the Strategy also laid out specific measures that the Government aimed to provide to community energy on a number of different topics, from generating renewable electricity, heat generation, reduction of energy use, to managing demand, purchasing energy and vulnerable consumers. Lastly, the Strategy set out an Action Plan for how the Government planned to tackle each of the issues it identified within the Strategy.

Example 25: Linking assessment of potential and barriers of RECs to enabling frameworks in Portugal

In legislation in Portugal partially transposing REC provisions in the REDII, the Ministry (DGEG) is required to undertake an assessment of potential for, and obstacles to, the development of RECs within two years of entry into force of the decree. The assessment must be made public by publishing it on their website. Following this assessment, the DGEG must propose an enabling framework to facilitate the development of RECs. The specific elements of the enabling framework that are elaborated in the legislation are taken directly from Article 22(5) of the REDII.

2.2.2. Facilitating access to RECs to low income and vulnerable households

RECs can play a significant role in using renewable energy sources and other clean technologies to help alleviate energy poverty and improve living conditions for low-income and vulnerable households. To date, some RECs have adopted a specific aim to alleviate energy poverty, usually through a combination of renewables generation and interventions that address energy efficiency. The Recitals of the REDII confirm the importance of participation of vulnerable and low-income households in renewable energy communities.

[23] UK Department of Energy and Climate Change (DECC) (2014). *Community Energy Strategy.*

They recognizes that empowering collective forms of self-consumption (including through RECs) help fight energy poverty (through reduced consumption and lower supply tariffs).[24]

Example 26: Addressing needs of vulnerable households through community energy: the UK

The importance of addressing needs of vulnerable households and fighting energy poverty has been recognized by many community energy initiatives. For instance, in the UK many community energy projects focus on alleviating energy poverty. In Plymouth, in 2014 the local council facilitated the creation of a community benefit society, the Plymouth Energy Community.[25] The aim of this project has been to provide energy advice (to help citizens switch energy suppliers) and efficiency solutions (to reduce consumption) to vulnerable households in order to tackle fuel poverty in the city. The project included a creation of a home energy team, volunteering and training programmes and (in 2014) a subsidiary society called 'PEC Renewables' (to "fund and build community-owned renewable energy installations in the city").

On the other hand, low-income and vulnerable households, which are most exposed to energy poverty, experience more difficulty accessing RECs and they are still largely accessible only to households that have disposable income to invest and participate. For RECs to unlock their full social innovation potential, these barriers need to be addressed so that all citizens can benefit from RECs.

In their enabling frameworks for RECs, Member States are required to ensure that participation in RECs is accessible to all consumers, particularly low-income or vulnerable households. This does not mean that all vulnerable or low-income households are required to participate in RECs. Rather, it requires Member States to put in place policies and measures that encourage or require RECs to make it easier for vulnerable and low-income households to participate, as well as put in place support for such households to participate in RECs. The aim should be to remove practical, financial and other barriers that might otherwise result in the exclusion of vulnerable and low-income households from participating in RECs.

The Recitals to the REDII state that it is important to assess "the possibility to enable participation by households that might otherwise not be able to participate, including vulnerable consumers and tenants"[26] As such, **we recommend that when assessing barriers and potential for the development of RECs at national level, Member States provide a particular focus on enabling vulnerable and low-income households, and tenants (not just home owners) to participate in RECs**.

[24] REDII, recital 67.
[25] A Bolle (2019). *How cities can back renewable energy communities - Guidelines for local and regional policy makers* (Energy Cities). Available at: https://energy-cities.eu/publication/how-cities-can-back-renewable-energy-communities/.
[26] REDII, recital 67.

Example 27: Opening up RECs to vulnerable and low-income households

Italy's new law on collective self-consumption and RECs states that RECs are open to all customers within the eligible scope of the activity, including those belonging to low-income or vulnerable families.

Responsibilities concerning low-income and vulnerable households as well as energy poverty lie in Member States. The EU laws do not provide definitions of vulnerable or low-income consumer/household or energy poverty (leaving it to Member States) but set guidance on criteria Member States may use when defining these terms.

Article 28 of the IEMD requires Member States to protect customers and in particular, vulnerable customers, as well as define the concept of vulnerable customers. The same Article provides also that Member States must take necessary measures to address energy poverty. These measures may be, for example, benefits by means of social security systems to ensure the necessary supply to vulnerable customers, or providing for support for energy efficiency improvements. **In developing measures to help vulnerable and low-income households participate in RECs, we recommend alignment with broader efforts to develop measures to address energy poverty under Article 28 of the IEMD.**

In their draft National Energy and Climate Plans (NECPs), several Member States linked energy communities to energy efficiency and/or poverty in their plans (Austria, Spain, Czech Republic, Greece, Hungary Ireland, Lithuania, the Netherlands, Romania, Slovakia). However, very few Member States have developed measures specifically aimed to enable vulnerable or low-income households to benefit from RECs, or to encourage their participation in RECs. **Given the novelty of this topic, we recommend that Member States innovate to connect energy poverty issues with policy on renewables self-consumption and RECs.** Specifically, Member States should consider measures such as:

- in the definitions of RECs, explicit aims to alleviate energy poverty and address vulnerable households;
- providing additional incentives to RECs that relax or remove participation requirements for vulnerable and low-income households; and
- providing financial support for vulnerable and low-income households so they can participate in RECs.

Example 28: Using energy communities as a vehicle to address energy poverty: Greece

Greece has integrated alleviation of energy poverty as one of the aims of energy communities. Specifically, tackling energy poverty is explicitly mentioned as one of the purposes of an energy community in the definition. Furthermore, in its stated activities, an energy community may engage in "actions to support vulnerable consumers and to address the energy poverty of citizens living below the poverty line within the Region in which the energy community's headquarters are located, regardless of whether they are members of the energy community, including offsetting energy needs, performing energy upgrades or other actions that reduce energy consumption." As such, energy communities can supply renewable energy to vulnerable households without them having to become a member of the energy community.

Example 29: Measures to enable participation in community solar projects by low-income households in the US

In the US, a number of programmes developed in different states aim to provide incentivises directly to low- and medium-income households so they can participate in community projects. However, these programmes also incentives, and in some cases require community energy project developers to facilitate the participation of such households.[27] These programmes include, but are not limited to:[28]

- tax incentives (tax credits against income) to renewable energy project developers that open up subscriptions at reduced rates to eligible customers;
- linking and/or setting aside incentives to provide a minimum ownership level to low-income households/tenants for local/community installations;
- using different forms of credit assessment for individual investors;
- loan loss reserve mechanisms which are fixed, or renewable accounts that contain funds to cover potential losses incurred by individual lenders over the life of the loan;
- third-party financing and on-bill financing/repayment for investments for individual installations or community projects, and on-bill credits for participants; and
- yearly targets for utilities to purchase energy from eligible local/community projects that have low-to medium-income subscribers, both as a requirement and voluntarily.

2.2.3. Tools to facilitate access to financing

Article 22(4)(g) requires Member States to make tools available so that RECs can access finance and information. We cover tools that can help RECs access finance in this section, while we cover information in section 2.5 below. The aim of this requirement is to de-risk investments by members of the community in renewables projects, which is typically a significant risk for new RECs.

A number of measures have been put in place by Member States to make it easier for RECs to access finance for their projects. First, several Member States have put in place guarantee, or grant-to-loan schemes (e.g. revolving funds) that RECs can access in order to fund pre-construction work (e.g. feasibility studies, permits, legal agreements, etc).

[27] J Roberts (2016). *Prosumer Rights: Options for an EU legal framework post-2020* (ClientEarth), commissioned by Greenpeace. Available at: https://storage.googleapis.com/planet4-eu-unit-stateless/2018/08/5bega6ee-5bega6ee-clientearth-prosumer-rights-options-for-a-legal-framework-final-03062016.pdf.
[28] Interstate Renewable Energy Council (2016). *Shared Renewable Energy for Low-to Moderate-Income Consumers: Policy Guidelines and Model Provisions*. Available at: http://www.irecusa.org/publications/shared-renewable-energy-for-low-to-moderate-income-consumers-policy-guidelines-and-model-provisions/

Example 30: Revolving funds to help de-risk investment in community renewables projects

A number of different funds have been established in the UK in order to help community energy projects get off the ground.

In Scotland, there are a number of funding opportunities provided under the Community and Renewable Energy Scheme (CARES). First, local non-profit community groups, community benefit societies and cooperatives, housing associations, faith groups and local authorities are eligible to receive up to GBP25k enablement grants, which can fund feasibility for energy systems or renewable energy projects, investigation of shared ownership opportunities or work to maximise the impact of community benefit societies with renewable energy projects. Second, these groups, along with rural businesses, are eligible to receive a loan of up to GBP150k for renewable energy projects with a reasonable chance of success. The loans can include a write-off facility that allows development risk to be mitigated.

Similar funding is available to community renewable energy projects in England. A Rural Community Energy Fund provides grants up to GBP40k for feasibility studies for rural community renewable energy projects and grants of up to GBP100k for business development and planning. Likewise, an Urban Community Energy Fund, which is now closed, used to provide up to GBP20k in grants to fund feasibility studies, consultations and securing of property rights. It was also possible to obtain contingent loans of up to GBP130k to fund the costs of developing and submitting a full planning application, carrying out community consultation, securing all necessary permits and grid connections, arranging power purchase agreements and costing contracts for supply and installation. If the projects were unsuccessful, however, because of their contingency, they would not need to bepaid back, which de-riskedg these activities.

Denmark has a smaller scheme which is similar to the ones in the UK. Furthermore, Ireland has included a revolving fund as part of its RESS 1 Scheme, while in the Netherlands the government is in the process of setting up something similar.

Other measures that have been developed by Member States are intended to incentivise investments by individuals into community projects. For instance, low-interest loans may be provided for community investments (e.g. district heating). Special tax treatment has also been provided to individuals that invest in social and community enterprises.

Example 31: SIES in the UK to incentivise investments in social enterprises

In the UK, socially responsible investment has been recognised as an effective way of supporting communities, solving social problems, and contributing to economic growth. To encourage such investment with respect to renewable energy, members of eligible social enterprises used to be entitled to tax breaks under the Seed Enterprise Investment Scheme (SEIS) and the Enterprise Investment Scheme (EIS). Under this scheme, taxpayers could offset 50% or 30% respectively of their investment against their personal tax liability. There were restrictions on eligibility for SEIS and EIS, and generally where entities benefit from FiT payments, their investors were disqualified from this tax relief. However, social enterprises (such as Industrial Provident Societies (IPSs) and Community Interest Companies (CICs) were still allowed to receive FiTs and raise investment under SEIS and EIS. This incentive was used to attract more socially-minded investors, and created a special incentive for individuals interested in investing in community power projects aimed at benefiting the community, as well as generating individual return on investment. In 2015, the

Conservative Government withdrew this support, which heavily damaged investment certainty for citizens looking to invest in community renewables projects.

2.2.4. Capacity building for local authorities

Article 22(4)(h) of the REDII requires Member States' national enabling frameworks 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."

Public authorities and local citizens initiatives are natural allies in pursuing local renewable energy projects. A study of Energy Cities from May 2019 underlines a 'natural' relationship between local public authorities and energy cooperatives.[29] Furthermore, a report by REScoop.eu demonstrates a number of examples where local municipalities are partnering up with cooperatives to co-invest in local projects.[30]

However, there are a number of difficulties encountered by local authorities when they want to support RECs. Local authorities often require support around specific knowledge and skills (e.g. to work on business plans, governance and financing models). Furthermore, authorities need to have good in-house legal, technical and financial capacities and resources.[31] Without the necessary resources, their ability to support RECs is very difficult. In some cases, RECs actually provide support to small local authorities.

Furthermore, local public authorities face a number of challenges in participating directly in RECs. To help authorities and as part of the cooperation, cooperatives can offer public authorities services consisting of identifying, developing and financing sustainable energy projects with a local character as well as helping to mobilise the funds within the local community.[32]

Example 32: Capacity building by Italy's regulator

Under Italy's new law on collective self-consumption and RECs, the Regulator, AREA, is given specific duties. One of these duties is to identify ways to encourage the direct participation of municipalities and public administrations in RECs.

Member States have the discretion to define the support they provide to local authorities. **We recommend that regulatory support include setting a proper legislative framework (e.g. authority to participate in RECs, planning authority and guidance and public procurement)**. Furthermore, **we recommend that capacity building support include sufficient funding,**

[29] A Bolle (n 25).
[30] REScoop MECISE (2018). *REScoop – Municipality Approach. Project Deliverable 2.3*. Available at: https://uploads.strikinglycdn.com/files/41e2baa5-54ea-4121-b2c1-831ba41a78bf/REScoop%20MECISE%20-%20REScoop%20-%20Municipality%20Approach.pdf.
[31] For example, "Such expertise can be needed in cases where local authorities have to act as mediator between different parties, for example when agreements cannot be found between cooperatives and DSOs on specific smart grid projects, a problem encountered by a growing number of local governments across Europe." A Bolle (n 25).
[32] RESCoop MECISE (n 30).

information and training for public authorities (e.g. technical expertise on renewables and energy efficiency projects, training on State aid for investment support needed for local projects). In this way, local authorities should not need to rely completely on external expertise but should also be able to set up their own projects or to engage directly in projects with citizens groups.

Lastly, implementation of this Article is also related to other requirements on administrative procedures, regulations and codes (Article 15), permitting (Article 16) and information and training (Article 18). Therefore, **we recommend a joint approach between the transposition of these different provisions that relate to information provision, access to technical expertise and capacity building, with active involvement and input from local and regional authorities, as well as existing RECs**.

2.2.5. Ensuring equal and non-discriminatory treatment of consumers that participate in a REC

Article 22(4)(i) requires that Member States' enabling frameworks have rules in place to ensure equal and non-discriminatory treatment of consumers who participate in the REC. This provision means that rules should prevent the REC from imposing overly-strict criteria for new members, or certain categories of members, namely members that are consumers. Furthermore, it implies that in the internal decision making of the REC, certain members should not have disproportionate voting rights compared to other individual members. In this way, Article 22(4)(i) can be seen as a guarantee that RECs are run democratically, similar to the principle of democratic member control. In order to meet this requirement, **we recommend that Member States place rules in their national provisions on RECs to ensure democratic voting (e.g. voting based on the one-person-one-vote principle, as explained above in section 1.7), and a prohibition on disproportionate entry fees for new members**.

Example 33: Ensuring equal treatment of members in cooperatives

In the Swedish Regulator's recommendations on transposition, according to Chapter 6. Section 38, the General Meeting may not make a decision that could confer an undue advantage on one member or another to the detriment of the association or another member. According to Chapter 6. Section 42, the board or any other deputy representative of the association may not take legal action or take any other measure that is capable of giving an undue advantage to one member or another to the detriment of the association or another member. There is no risk of discriminating against vulnerable consumers based on the proposed regulation.

2.3. Reporting requirements and links to energy union governance - Art. 22(5)

In order to allow for EU level monitoring of Member States' enabling frameworks for RECs, Art 22(5) provides that 'the main elements of the enabling framework and of its implementation shall be part of the updates of the Member States' integrated national

energy and climate plans and progress reports'. This requirement is also reflected in Annex I to Regulation 2018/1999 (the Energy Union Governance Regulation).[33]

This means that Member States will need to report on how well their national enabling frameworks are being implemented, the earliest of which will be due by 15 March 2023, and two years thereafter. It also means that Member States will need to include the main elements of their enabling frameworks for RECs in their draft (2023) and final (2024) NECP updates.

We recommend that Member States use these requirements to undertake a quality check of national rules and their implementation that can be carefully examined by the European Commission and scrutinised by relevant stakeholders during the consultation processes. If the exercise is done properly, it can allow for improvement of enabling frameworks for RECs over time. In this sense, **we recommend that Member States use this process to revisit the barriers and potential for RECs in their original assessments under Article 22(3), so they can be used as a baseline for making progress on creating enabling frameworks for RECs**. In order to ensure a proper analysis on the effectiveness of enabling frameworks, **we also recommend Member States establish institutionalised methods of monitoring the growth of RECs, as well as other practical data on their activities and environmental, economic, social and energy system impacts**.

2.4. Support schemes for RECs - Art. 22 and Art. 4

2.4.1. Taking RECs into account in national support schemes

One of the foundational supportive elements for RECs in the REDII is guaranteeing a level playing field for RECs in national renewables support schemes. Specifically, Article 22(7) requires Member States to "take into account specificities of [RECs] when designing support schemes in order to allow them to compete for support on an equal footing with other market participants." This provision does not amount to a requirement for Member States to adopt a renewables support scheme. However, where Member States do have a renewables support scheme in place, it does require it to be tailored so that RECs can access them on a level playing field with other larger market actors.

This requirement should be seen as what the recitals to the REDII call "measures to offset the disadvantages relating to the specific characteristics of local [RECs] in terms of size, ownership structure and the number of projects" that will enable them to operate in the energy system and ease their market integration.[34] In other words, these measures are necessary in order to correct for the distinct challenges RECs face in participating in competitive bidding processes.

[33] Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action, OJ L 328, 21.12.2018, p 1 (Energy Union Governance Regulation), Annex I, Part 1, Section 3, 3.1.2, v. This provision also refers explicitly to Article 22(5) of the REDII.
[34] REDII, recital 71.

2.4.2. Exemptions from tenders

Article 22(7) also states that creating an equal footing for RECs in national support schemes is without prejudice to Articles 107 and 108 of the Treaty on the Functioning of the European Union (TFEU). This means that measures designed to ensure an equal footing for RECs must be consistent with the Guidelines on State Aid for Environmental Protection and Energy (EEAG).[35]

The 2014 EEAG acknowledge that for 'small market participants' market integration techniques such as competitive bidding may not be 'appropriate'.[36] Therefore, the EEAG allow Member States to provide small renewables generation installations (installed capacity under 500 kilowatt (kW), or 3 megawatt (MW) or 3 generation units for wind installations), with non-market-based forms of support, such as fixed feed-in tariffs (FiTs).

Furthermore, the EEAG allow small installations (installed capacity under 1 MW, or 6 MW or 6 generation units for wind installations) to be exempted from participating in auctions or tenders for renewables support.

Article 4 of the REDII, which constitutes a rule book for renewable support schemes across Europe, integrates the EEAG's exemptions for small-scale renewables installations. In particular, it allows small-scale installations to receive direct price support (i.e. fixed FiTs) and they may be exempted from tendering procedures.[37] The REDII does not define small-scale installations, meaning that the reference point for such installations is the EEAG. **We recommend that Member States make full use of EEAG-allowed exemptions, particularly from tenders and auctions, as these serve as significant barriers for RECs' access to finance and the market**.

By 31 December 2021 and every three years thereafter, the EU Commission will need to provide a report on the operation of tendering procedures for renewables across the EU. Among other things, the Commission will need to analyse whether tendering procedures provide non-discriminatory participation of small actors and local authorities, as well as the extent to whether they ensure local acceptability. This will be an important transparency mechanism at EU level that can feed into the future development of measures to ensure an equal footing for RECs in national renewables support schemes.

2.4.3. How to design renewables support schemes for RECs

The REDII does not prescribe how Member States must ensure equal footing for RECs, leaving it to their discretion. Nevertheless, the recitals provide some guidance in this regard:

> "*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*

[35] Commission (EU) *Guidelines on State aid for environmental protection and energy 2014-2020* (Communication) [2014] OJ C200/1 (EEAG).
[36] *Ibid*, paras 111 and 123.
[37] REDII, Article 4(3) and (4).

energy communities to be remunerated through direct support where they comply with requirements of small installations."

This means that Member States are encouraged to design support schemes using a number of different approaches. These include easing administrative burdens to make it easier for RECs to participate in tenders, for instance easing guarantee requirements or exempting RECs from having to obtain certain permits before placing a bid. RECs could also be exempted from having to place a bid altogether, instead bidding as cleared, in other words taking the value of the overall winning bid.

Example 34: Relieving communities from having to submit market-based bids: California and Germany

California uses an auction programme in order to complement its FiTs programme (ReMAT) for smaller installations (< 3 MW). In particular, auctions influence the price offered under the 'ReMAT' feed-in-tariff. The weighted average price of the three utilities' highest auction prices in the auction served as a starting price for the Feed-in-Tariff (FiT) mechanism, which went on to adjust its price every two months based on deployment rate.[38]

In its 2017 EEG, Germany created a number of exemptions in its onshore wind tender to enable participation by what it calls 'citizen energy companies'. Among one of the exemptions was that citizen energy companies did not need to submit a bid over the actual cost of the project. Instead, it could take the value of the award of the highest bid awarded funding from the same bid deadline.[39]

We recommend that Member States consider creating separate, specific bidding windows for RECs in their support schemes. This would essentially carve out a certain amount of capacity in the tender specifically for RECs. RECs could then either compete amongst each other, creating a fair level for competition, or be based on first-come-first-served basis. This latter option would have the benefit of preventing unnecessary potential conflicts between different local communities.

We recommend that special bidding windows also be coupled with targeted capacity building measures in order to help RECs go through the necessary steps to set up their project. This could also help in supporting the transposition and implementation of Article 16 of the REDII, which requires the establishment of contact point for guiding permit applications. While these must be open for all project applicants, the contact points could be used as a specific tool to guide RECs through the administrative process of getting necessary permits, licenses, a grid connection, and participating in the tender.

It could also help Member States meet their requirements under Article 18(6) to provide information, awareness-raising, guidance and training to citizens on how they can exercise their rights to participate in RECs.

[38] *See* Fitch-Roy, O (2015). "Auctions for Renewable Support in California: Instrument and lessons learnt," Report D4.1-CAL, AURES Project.
[39] German Renewable Energy Sources Act (EEG 2017), Section 36g.

Example 35: Special bidding windows and capacity building support for RECs: Ireland

Ireland is creating a special category for RECs in its RESS 1 Scheme so they can compete against each other instead of other large developers.[40] In particular, the Government has proposed ringfence capacity up to 10% in its second auction (circa 300 GW/hrs) under the scheme. This will be subject to review for future auctions and projects will need to meet community-led criteria to qualify.

The scheme provides two definitions: one for RECs, and one for community-led projects. The second definition is to ensure that projects that benefit from the privileges contained in the RESS 1 Scheme are truly owned and driven by local communities themselves – not commercial developers. As such, the projects or the ownership of the shares of the generator must be at least 51% owned by a REC, and at least 51% of all profits, dividends and surpluses from the project must be returned to the relevant REC. The REC must be entitled to appoint at least one director to the board of the generator, the REC must have a minimum of 150 shareholders. To ensure autonomy, there is a limit on share capital per member set at 20,000 and each share entitles the holder to one vote.

While RECs can apply to participate in the auction with other commercial projects or only with community projects, where the REC participates in the latter only, they are not required to provide a bid bond or a performance bond. Such projects must be between 1 and 5 MW. An application must also be made in conjunction with a Sustainable Energy Community, which are already existing local groups formed to address different energy issues. The form of support a community led project will receive is a floating feed in premium, and there are no indications that it will differ from other successful projects.

We recommend that Member States also consider adopting bidding criteria in their tenders that go beyond cost, integrating other social considerations such as public acceptance or opportunities for public participation. This would offer RECs the opportunity to submit bids that help demonstrate their local socio-economic value.

Example 36: Municipal tenders in Belgium

In Belgium, local authorities can tender out the development of renewable energy projects on publicly-owned land. In doing this, they often integrate policy or development objectives, including citizen involvement and public acceptance. The tendering criteria may be based on points, or specific criteria that the authority will take into account when assessing the bids.

The following is an example from the municipality of Eeklo, which developed tender criteria for development of a wind project on their land, which was based on a provincial wind plan:

- Aiming for at least 50% direct participation for municipality and local citizens
- Contribution of 5,000€/year for each wind turbine (paid to a community benefit fund)

[40] *See* Government of Ireland (2019). *Renewable Electricity Support Scheme (RESS) High Level Design*, pp. 14-15. Available at https://www.dccae.gov.ie/en-ie/energy/topics/Renewable-Energy/electricity/renewable-electricity-supports/ress/Pages/default.aspx.

- Contribution of 5,000€/year for each wind turbine (paid to the municipality)
- Including social-societal criteria in the public tender (not only financial criteria)

It is important to note that these criteria were for a municipal tender to develop the project. As such, the winning bid did not have anything to do with receiving financial support. Nevertheless, it is instructive in the type alternative criteria that can be used to develop tenders or auctions that reward local value creation and public participation and acceptance, rather than just lowest cost.

Member States should also consider simply exempting RECs from participating in tenders in line with the EEAG. As non-commercial, small, local market actors, they are not well suited for participating in such processes, and mitigating these challenges may actually do little to create an equal footing. Therefore, trying to mitigate some of the challenges RECs face could create more problems than solutions. For instance, reducing administrative barriers and creating special exemptions from prequalification criteria could result in perverse incentives for other market actors to try and set up special schemes that look like RECs. This could create new market distortions against RECs and other market actors.

Example 37: Exemptions from participating in tenders for community projects in Greece

Since 2016, Greece has moved from a standard FiT system to a tender process to support renewables. However, under Article 11 of Law 4513/2018 on Energy Communities, the Minister may develop special provisions for energy communities in organising tenders for renewables. Under these rules that have been developed for tenders (as of the end of 2019), community wind installations with a capacity below 6 MW (under 18 MW maximum) are exempted from the obligation to participate in the auctions. Energy communities with PV installations under 1 MW may also forego participation in tenders and receive a feed-in tariff that equals 10% above the average of the winning bids in the three previous auctions for PV. These thresholds are based on the limitations set by the EEAG at EU level.

2.4.4. Going beyond the REDII – Ensuring community ownership for new commercial projects

A number of local, regional and national governments have adopted requirements that all new renewable energy projects (mostly wind and solar) offer a certain amount of ownership of the project to local residents. Such schemes are also known as 'right to buy' schemes. This has been seen as a way to ensure that local communities are guaranteed a stake in the development of new installations and helping secure local support. While the REDII does not mandate that Member States adopt such measures, **we recommend that decision makers consider adopting 'right to buy' requirements**. If designed in the right way, such schemes can promote co-ownership between local communities and professional renewables project developers, as well as combat public opposition to new installations.

Example 38: Netherlands' 50% ownership offer requirement for onshore wind and PV projects

In early 2019, the Netherlands adopted a political agreement on how to achieve its 2030 climate and energy goals. Importantly, the final agreement contains a non-binding objective that for all new wind and solar projects, 50% ownership should be offered to the local community. Municipalities will take up a significant role in coordinating local participation and the objective will serve as a basis for municipal planning of renewable energy development and feed into the planning permission process. This will guarantee that developers, when seeking permission for new projects, talk with communities to understand how they want to be involved. It should also provide the basis for a legal framework that will contain measures to provide a degree of certainty for how the objective will be realised at local level through the project.

2.5. Information, awareness raising, guidance and training - Art. 18(6) and Art. 22(4)(g)

Article 18(6) of the REDII requires that Member States, along with local and regional authorities when appropriate, develop information, awareness-raising, guidance or training programmes to inform consumers how to exercise their rights as active customers, as well as practical aspects, including technical and financial, of developing renewables projects through self-consumption and RECs.

The aim of these activities should be to inform citizens of:

- how to exercise their rights as active consumers;
- benefits of exercising such rights; and
- the technical and financial practicalities of engaging in renewables self-consumption and developing a REC.

Similarly, Article 22(4)(g) requires that in their enabling frameworks for RECs, Member States make information available on how to set up a REC.

While distinct, these obligations are significantly linked to each other. Article 18(6) is not limited to RECs and applies more broadly to citizens getting involved in renewables generation. Nevertheless, both provisions provide an obligation to contribute towards capacity building through provision of information, awareness raising and practical guidance on activities. This obligation could also be met through providing funding to local social enterprises or local authorities in order to provide information and expertise to community groups and citizens.

Furthermore, while distinct from requirements in Article 16 for Member States to set up a single contact point for the permitting of new renewable projects (discussed in section 2.6.2. below), such institutional structures could serve as appropriate access and dissemination points for capacity building information, advice and training that citizens need in order to develop REC projects. **We recommend using national and local contact points, as appropriate, to provide appropriate information to citizens on technical and financial aspects of REC projects, renewables self-consumption, and other aspects of becoming active in the energy system, for instance through energy efficiency, home renovations and flexibility**.

Example 39: Structures supporting local community energy projects

In Scotland, UK, the Government set up the Community and Renewable Energy Scheme (CARES) with the aim to support and grow community and local energy community projects, and to increase shared ownership of renewable energy installations. It is administered by a non-profit network organization, Local Energy Scotland. In addition to providing finance and related expertise, CARES provides different types of informational assistance and expertise to community groups. All relevant information is also provided on a website, which includes a toolkit for different technology options, a planning toolkit, good practice, guides, project summaries, and other useful reports and case studies. The scheme is open to certain types of socially-oriented legal entities, non-profits, local authorities, community groups and rural SMEs.

In Germany, a local initiative specific for wind energy producers has been established in the district of Steinfurt. It started with creation of 'Guidelines for Citizens' Windparks' by a task force consisting of the local mayors, representatives from public utilities and the agriculture industry. Then, a single contact point to citizens, local public officers, businesses, farmers, nature protection advocates, etc., the 'Wind Energy Service Station', was created. Its mission is mainly to put the guidelines into practice.

In Denmark, the Energy Service, *Energitjenesten*, was established in 2005 as an independent energy consultancy service run by citizen-based organizations. Through 10 local/regional offices The Energy Service is present and able to run activities throughout Denmark. The aim is to promote behaviours and decisions that save energy and change energy use to renewable energy sources - not only at home, but also at the workplace and during transport. It has four focus areas, including Private Energy Service, Schools, Energy Service for the Construction Sector, Green Diplomas, and Municipalities. It is funded by the public service obligation component of consumers energy bills.

2.6. Administrative procedures for renewable energy projects - Art. 15 and Art. 16

2.6.1. Integrating RECs and renewables self-consumption into local planning

Article 15(3) of the REDII requires that national, regional and local authorities include provisions on the integration and the deployment of renewable energy, including for renewables self-consumption and RECs, when planning (e.g. early spatial planning), designing, building and renovating urban infrastructure, industrial, commercial or residential areas and energy infrastructure, including electricity, district heating and cooling, natural gas and alternative fuel networks. This provision also requires Member States to ensure that local and administrative bodies consult network operators on impacts of energy efficiency and demand response as well as specific provisions on renewables self-consumption and RECs on the infrastructure development plans of the operators.

This provision means that local plans should provide dedicated provisions on how RECs and renewables self-consumption can be developed locally in accordance with existing and new or planned infrastructure, for instance spatial and urban planning, and planning of district heating and power networks. It also reflects the necessity to streamline energy citizens into various local and regional policies, and demonstrates the role of energy communities in applying the efficiency first principle (where energy efficiency and demand

response should be considered before decisions on infrastructure developments are taken).[41]

Example 40: Providing transparency for potential REC projects in Lithuania

In Lithuania, preliminary drafts of transposition of the CEP are currently being developed. Nevertheless, the draft proposals by the Ministry contain a requirement for municipalities, in accordance with the Law on Spatial Planning, to evaluate and make public on their website, information regarding where REC installations for production may be built or installed. In particular, the locations must also be made public on the municipality's website.

2.6.2. Using single administrative contact points for renewables projects to provide capacity building for RECs

Article 16 of the REDII requires Member States to establish one or more contact points that shall, upon request, guide applicants through and facilitate the entire administrative permit application and granting process for renewables projects. The term 'permit granting process' covers "(…) 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."

In addition to simplifying and centralising the permit granting process, contact points also have tasks related to capacity building, which include:

- Providing guidance to the applicant through the permit application process in a transparent manner up to the delivery of one or several decisions by the responsible authorities at the end of the process;
- providing the applicant with all necessary information;
- making available a manual of procedure for developers of renewable energy production projects; and
- ensuring the manual of procedures is online and distinctly addresses small-scale and renewables self-consumption projects).[42]

Although the single points required in Article 16 are not specific to RECs, they have the potential to correct the asymmetry of technical information between RECs and commercial developers. As such, **we recommend that Member States use single contact points as a dedicated institutional mechanism to help build capacity of citizens that want to develop REC projects**. This would include using these contact points to:

- provide citizens with information regarding their rights, and technical and practical aspects of developing renewables self-consumption and RECs, as required by Article 18(6);
- Providing tools to access finance, as required by Article 22(4)(g); and

[41] K Petrick, J Fosse, S Klarwein, M Reus (2019). "Policy Brief: Strategies for Policy Coherence and Sustainability," PROSEU Project. Available at: https://proseu.eu/sites/default/files/Resources/PROSEU_D3.2_Part1_Policy%20Frameworks_Final.pdf
[42] REDII, Article 16(2)(3).

- Assisting RECs in the administrative process of receiving support under renewables support schemes, as required by Article 22(7).

Article 25 of the IEMD also requires Member States to establish single points of contact to provide consumers with all necessary information concerning their rights, current legislation and the means of dispute settlement available to them in the event of a dispute. Member States may want to consider whether contact points under Article 16 of the REDII should contain links with general consumer information points.

3. Citizen Energy Communities – The Electricity Directive

This section highlights the main provisions in the Electricity Directive (IEMD) that pertain to CECs. Article 16 of the IEMD is the main article containing core provisions on CECs.

The overall organisation of provisions on CECs is very similar to those developed for RECs under the REDII. For instance, the IEMD contains requirements for Member States to ensure certain rights and obligations for CECs, and to provide enabling frameworks for them. Nevertheless, there are several minor yet notable differences, both in the scope of provisions on CECs and their overall aim.

It is important to note an important difference between provisions that are framed as rights, versus the enabling frameworks. Rights are automatic and enforceable in law. Once the Member State has put in place measures to ensure these rights can be exercised, they should be stronger and easier to defend than the policies and measures in enabling frameworks.

Below we focus on identifying these differences. We also cover additional concepts for CECs that are not developed for RECs in the REDII, for instance around the possibility for CECs to develop, own and operate community networks.

3.1. Rights and obligations of CECs - Art. 16(3)

Article 16(3) has a strong emphasis not just on rights but also on obligations. For instance, CECs must be responsible for contributing to grid balancing. CECs must also be subject to cost-reflective tariff structures like other active customers if they engage in collective self-consumption. This is more fully elaborated in section 5.4.

In contrast to RECs, where activities are defined as rights in Article 22 of the REDII, for CECs activities are enumerated in the CEC definition contained in Article 2(11) of the IEMD. In particular, CECs may engage in generation, distribution, supply, consumption, aggregation, energy storage, energy efficiency services or charging for services for electric vehicles or provide other energy services to its members or shareholders. Also, similar to the REDII, Article 16(3)(e) of the IEMD requires Member States to ensure that CECs can engage in energy sharing.

The rather open-ended list of activities in the CEC definition provides the possibility for integrated activities. However, this was not the main intent of including the list. Rather, it is more aimed at acknowledging existing or potential activities that a CEC could engage in. It is also worth noting that the CEC definition refers to supply, while Article 22(2)(a) of the REDII refers to sale. For all intents and purposes these two words have the same meaning, and their different wording is only a minor oversight due to the separate legislative processes of the REDII and the IEMD.

Similar to RECs, CECs have a right to non-discriminatory access to all suitable energy markets both directly and through aggregation. CECs must also be treated in a non-discriminatory manner with regard to their activities, rights and obligations based on the

different roles they perform. This provision is mirrored for RECs, and is more fully elaborated below in Section 5.2.1.

3.2. Enabling frameworks for CECs - Art. 16(1)

As mentioned elsewhere, the policy aim of providing enabling frameworks for CECs differs somewhat from enabling frameworks for RECs. Specifically, enabling frameworks for CECs aim simply to create a level playing field so they can participate across the market. While this could suggest the need for enabling frameworks to contain special measures to correct for inherent disadvantages for CECs in gaining market access, CECs should not receive special privileges. As such, the elements that must be in the enabling framework for CECs are much shorter than those of RECs.

First, Member States' enabling frameworks must support several of the elements contained in the REC and CEC definitions, namely that participation in a CEC is open and voluntary, and that members can leave the community consistent with their right to choose their energy supplier. Furthermore, the enabling framework should protect consumers by ensuring they do not lose their rights and obligations as household or active customers. This is similar but not identical to the rights that are included in Article 22(1) of the REDII.

Lastly, enabling frameworks must ensure that (DSOs) cooperate with CECs to facilitate electricity transfers within the community. Furthermore, they must ensure non-discriminatory, fair, proportionate and transparent treatment (e.g. charges and procedures) of CECs with regard to registration and licensing procedures, as well as transparent, non-discriminatory and cost-reflective network charges. Both of these provisions will be further elaborated in sections 5.2.1 and 5.4, respectively.

3.3. Community networks - Art. 16(2)

3.3.1. Overview of general framework for community networks

Article 16(2) articulates Member States' express power to allow CECs to own and manage distribution networks. Member States have the discretion, but not the requirement, to allow CECs to undertake DSO roles.

The IEMD describes at least two possibilities for how Member States could allow CECs to become DSOs. First, CECs could become DSOs under the general regime for distribution network operators (referred to as 'public DSOs'). Second, CECs could become closed distribution system operators (referred to as 'closed DSOs').[43] Under this option, Member States could provide certain exemptions for CECs set out in Article 38(2), which would reduce the administrative burden on the DSO. Given their wide discretion in this area, Member States could take other approaches, for instance allowing CECs to enter into arrangements with DSOs to operate or manage a portion of a given network.

It is not entirely clear whether Article 16(2)(b) and (c) are intended to apply to both public and closed distribution networks. It is clear that Article 16(2)(b) applies to a public distribution network. While it is also likely that Article 16(2)(b) allows the formation of a closed distribution

[43] IEMD, recital 47.

network, Article 38(1) nevertheless allows Member States to legislate for classification of certain systems as closed distribution systems where they distribute electricity within a geographically confined industrial, commercial or shared services site and do not primarily supply households. On its face, this might appear to exclude CECs from operating closed distribution networks, because they are likely to have many household customers as members. However, when reading both Article 16(2)(b) and (c) together, this possibility is open to CECs. To conclude otherwise would create a logical difficulty in justifying the existence of the provisions. It would also mean that general obligations for CECs that act as DSOs could be disregarded, which as discussed below in section 3.3.2, should be prohibited.

Below we explain which requirements must apply to community networks, if Member States use their discretion to allow CECs to become operators of closed or public networks. We also provide some examples of Member States that allow for public grid ownership. Lastly, we provide a number of considerations for Member States to ponder in deciding whether to allow CECs to own and operate closed distribution networks or enter into other arrangements with DSOs.

3.3.2. General requirements for community networks

Article 16(4) of the IEMD provides details on the rules that must apply to community distribution networks, where Member States have used their discretion to allow such ownership. First, if a CEC is granted the status of a DSO, it must be subject to rules laid out for DSOs under Chapter IV (*Distribution system operation*) of the IEMD, and other rules and regulations applying to DSOs.[44] For instance, requirements relating to unbundling and third party access[45] apply to community DSOs. Furthermore, if a Member State grants such a right, the Member State must ensure that CECs:

> *(a) are entitled to conclude an agreement on operation of their networks with the relevant DSO or TSO to which their network is connected;*
>
> *(b) are subject to appropriate network charges at connection points between their network and the distribution network outside the citizen energy community and that such network charges account separately for the electricity fed into the distribution network and electricity consumed from the distribution network outside the citizen energy community, in accordance with Art 59(7); and*
>
> *(c) don't discriminate against or harm customers who remain connected to the distribution system.*

Article 59(7) sets out requirements in relation to the fixing and approval of national network distribution tariffs or methodologies for their calculation.

For CECs that act as public DSOs, limitations on owning, developing, managing and operating storage and electric vehicle charging infrastructure would also apply. However, there are exemptions to these restrictions for closed DSOs.[46]

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[44] *Ibid*.
[45] *See* IEMD, Art 6(3).
[46] *See* IEMD, Art 38(2)(d)(e).

3.3.3. Public distribution grids

Article 16(2)(b) of the IEMD allows Member States to legislate domestically for CECs to be entitled to own, establish, purchase or lease distribution networks and autonomously manage them, subject to the conditions in Article 16(4). A CEC can obtain a greater level of control of the operation of their network by becoming a public distribution network DSO. Indeed, when electrification was taking place back in the early 1900s, many rural communities invested in, took ownership of, and operated their own heating and power networks through cooperatives. In Germany, for instance, between 1895 and 1932 no less than 6,000 electricity cooperatives were created, some of which have survived to this day through two world wars, communism and neo-liberalism.[47]

Some Member States are more open to community ownership than others. In Member States where CECs can act as DSOs, rules for DSO ownership or operation generally allow private entities to bid for the operation of a distribution grid, also known as a concession system. Such entities could include energy communities, depending on their legal status. Concession systems typically use competition, which allows the successful bidder to operate the distribution system and market their good or service (such as electricity supply). They are regulated at EU level by Directive 2014/23/EU (Directive on the award of concession contracts).[48] In Germany, these kinds of contracts are predominant in the operation of electricity grids in municipalities and cities.[49]

Example 41: Concessions systems give energy communities opportunities for grid ownership

In Germany, the German Energy Industry Act (Energiewirtschaftsgesetz – EnWG) requires local authorities to award network concession contracts as part of a competitive, non-discriminatory public procedure. Awarding a concession contract directly to a local public operator is not allowed and concession contracts cannot exceed 20 years (Libbe, 2014; VKU, 2011). The network remains highly fragmented between over 900 electricity distributors, mostly Stadtwerke, 90% of which have fewer than 100,000 customers.

Local communities actively use this process to reclaim grids that have been privatised over the past 30 years. The first citizen takeover of a distribution grid occurred during the mid-1990s in Schönau, a small German town with 282 citizens in the Black Forest. Wanting to demonstrate alternatives to nuclear power, and frustrated with the local grid operator, a small group of citizens founded ElektrizitatsWerke Schönau (EWS). After a long-fought campaign that included two referendums, EWS won the concession to the grid in 1997. Since 2009, EWS has grown into a cooperative with approximately 5,000 members. The cooperative operates nine local electricity

[47] L Holstenkamp (2012). *The Rise and Fall of Electricity Distribution Cooperatives in Germany*. Paper presented at the "Conference on Cooperative Systems", Bolzano, 9 November 2012. See also D Vansintjan (2015); and *The Transition to Energy Democracy*, p 17. Available at: https://uploads.strikinglycdn.com/files/adacaa76-5074-4bd6-8b4a-a9d66b124406/REScoop%20Energy%20Transition%20to%20Energy%20Democracy%20-%20English.pdf

[48] Directive 2014/23/EU of the European Parliament and of the Council of 26 February 2014 on the award of concession contracts, OJ L 94, 28.3.2014, p 1.

[49] Common Guideline of the Federal Cartel Office and Federal Network Agency for the procurement of electricity and gas concessions and to the change of the concession holder in such agreements (21 May 2015) p 2.

and gas networks. This is because most gas and electricity concessions in Germany are interlinked. Therefore, both applicants must compete for both grids simultaneously.[50]

3.3.4. Closed distribution networks and relevant exemptions

Article 16(2)(c) of the IEMD provides that Member States may provide in the enabling regulatory framework that CECs are subject to the exemptions provided for in Article 38(2). If a Member State enables CECs to own and operate closed distribution networks, they might also allow them to benefit from certain exemptions specific to closed distribution networks. Where Member States allow it, Article 38(2) allows regulatory authorities to exempt the operator of a closed distribution system from various requirements that apply to public DSOs. These include exemptions from the following IEMD requirements:

- to procure energy to cover energy losses and the non-frequency ancillary services in its system in accordance with transparent, non-discriminatory and market-based procedures;[51]
- that tariffs applicable on those networks, or the methodologies underlying their calculations, be approved in accordance with Art 59(1) prior to their entry into force;[52]
- to procure flexibility services, and develop the operator's system on the basis of network development plans;[53] and
- not to own, develop, manage or operate recharging points for electric vehicles or energy storage facilities.[54]

Generally, a CEC that operates a distribution network should be required to comply with the ordinary requirements of a DSO, to ensure fairness and administrative consistency. However, it might be appropriate for one or more of the above exemptions to apply in particular circumstances. For instance, a CEC in a remote location might opt, through its democratic decision-making process, to invest in vehicle recharging points or batteries because external investors are not taking on those investments after a reasonable period of market engagement.

Our research indicates there are no energy communities that would meet the definition of a CEC that is operating its own closed distribution network. Nevertheless, as Member States consider whether to allow CECs to establish, own and operate closed distribution networks pursuant to Article 16(4), we recommend decision makers look at the following considerations:[55]

- Energy communities managing their own distribution network might be more resilient to blackouts occurring on the general network, especially if they have

[50] Elektrizitätswerke Schönau (2017). *Elektrizitätswerke Schönau, Germany: How mothers, teachers and doctors took over the power grid and energy supply.* Energy Democracy. Available at https://www.energy-democracy.net/?p=1067
[51] Per Article 31(5)(7).
[52] Per Article 6(1).
[53] Per Article 32(1)(3).
[54] Per Article 33(2) and Article 36(1).
[55] See VREG (2020), Advies van de VREG van 17/3/2020, section 3.2.2.2.1. Available at https://www.vreg.be/sites/default/files/document/adv-2020-01.pdf.

'islanded', independent infrastructure.

- Community networks may have more value to members/customers, as well as the overall network, depending on where they are located. For instance, community networks might have considerable benefits on an island or rural region, whereas a community network sited in an urban area might create more complications than problems solved.

- Any CEC looking to manage, operate and/or own its own network would need to address cybersecurity requirements (at a time when cyber-attacks are likely to become more common) to ensure security of their network. This could be particularly difficult for smaller CECs, given the current trend towards mergers of DSOs and associated benefit of economies of scale.

- CECs operating their own networks might be able to reduce congestion and the need for further network expansion in other parts of the network to which they are connected, particularly where energy flows within their network are optimised.

Example 42: A conservative approach while leaving some options open in Flanders

In Flanders, Belgium, in its recommendations to the Ministry on the transposition, the Regulator, VREG, has expressed its opinion that energy communities should not operate public electricity grids, given the current organization of distribution network ownership. Nevertheless, VREG does opine that limited regulated networks, such as district heating networks, could be managed by RECs. VREG also takes the position that a REC could also operate a closed distribution network, as long as the REC is capable of meeting requirements for becoming a DSO and the community's network qualifies as a closed distribution network.

If a Member State chooses not to adopt provisions allowing CECs to own and operate closed distribution networks, it might consider as an alternative offering a programme of regulatory sandboxing for select new forms of energy market participation, including activities of RECs and CECs. For further details on regulatory sandboxes, see section 5.3.

4. Ensuring coherence between CECs' and RECs' activities

4.1. Collective renewables self-consumption

Collective renewables self-consumption is one of the many interesting opportunities for RECs. Below, we provide guidance for how REC definitions and frameworks should fit alongside those for renewables self-consumption. As many of the regulatory issues that relate to renewables self-consumption concern network charges and remuneration for excess production that is fed into the grid, these topics are covered in section 5.4.

4.1.1. Framing of jointly acting renewables self-consumers under the REDII

Article 2 of the REDII contains two definitions that identify, or acknowledge, actors that engage in renewables self-consumption. The activity itself is governed by Article 21 of the REDII.

The first definition, 'renewables self-consumer' refers to an individual consumer that engages in the act of renewables self-consumption. The second definition, 'jointly acting renewables self-consumers', refers to a number of consumers (i.e. more than one) that engage together in the act of collective self-consumption. The IEMD also defines 'active customers', which encompasses renewables self-consumption, along with other activities such as flexibility and energy efficiency.[56] For our purposes, we use the term 'jointly acting renewables self-consumers' when talking about the persons concerned, and 'collective self-consumption' when the activity is concerned.

Figure 9: Renewables self-consumption definitions under the REDII

Article 2(14) REDII: 'renewables self-consumer'	Article 2(15) REDII: 'jointly acting renewables self-consumers'
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, and who may store or sell self-generated renewable electricity, provided that, for a non-household renewables self-consumer, those activities do not constitute its primary commercial or professional activity.	A group of at least two jointly acting renewables self-consumers in accordance with point (14) who are located in the same building or multi-apartment block;

The definitions both concern the activity of generation, which may then be self-consumed, stored and/or sold. All final customers may engage in renewables self-consumption,

[56] IEMD, Art 2(8).

including household, commercial and industrial consumers. Non-household customers that have generation, storage and sale of electricity as their primary commercial or professional activity are excluded, meaning that professional energy companies would not be eligible to be considered a renewables self-consumer. Nevertheless, this does not prevent energy companies from facilitating renewables self-consumption for other final consumers, for instance through the provision of services. Under Article 21(5) of the REDII and Article 15(2)(d) of the IEMD, installations can be managed by a third party.

The primary difference between the two definitions is that renewables self-consumption is about a single consumer generating renewable electricity on their premises for their own individual consumption, while jointly acting renewables self-consumers implies that multiple consumers come together to generate renewable energy on their same building or multi-apartment to meet their collective consumption needs.

Member States have discretion to determine the scope of premises that are eligible to generate renewable electricity for self-consumption. At the minimum, self-consumers must be able to generate and self-consume renewable electricity on the same property. However, according to the definition, "where permitted by Member States", jointly acting renewables self-consumers may have generation "within other premises." Article 21(4) also refers to "renewable energy that is produced on [jointly acting renewables self-consumers'] site or sites." Both provisions imply that renewables self-consumption may take place through virtual arrangements of generation that is installed at a different location from the final consumer. **We recommend that Member States use their discretion to adopt an expanded geographical scope for renewables self-consumption, as it allows for greater and more equitable uptake by individuals and jointly-acting consumers that use suitable land or rooftops nearby for renewables production**. Geographical scope is explored below in Section 4.1.4.

Member States may create different rules for individual self-consumers and jointly acting self-consumers. However, those rules must be proportionate and duly justified. This means that any difference in treatment must be proportionate to the technical differences between the scale of the activity and its impact on the network. It also means that if a Member State wants to create additional restrictions or limitations for collective self-consumption compared to individual renewables self-consumption, it must provide a rationale for doing so.

Lastly, the definitions refer only to electricity – not other types of energy, such as heating. Likewise, the rules for renewables self-consumption in Article 21 of the REDII only apply to renewable electricity. This does not prevent, or require, the establishment of legal frameworks for other types of renewables self-consumption. It only means that they are not specifically covered by EU legislation.

4.1.2. Ensuring proper distinction between self-consumption as an activity and energy communities as a way to organise

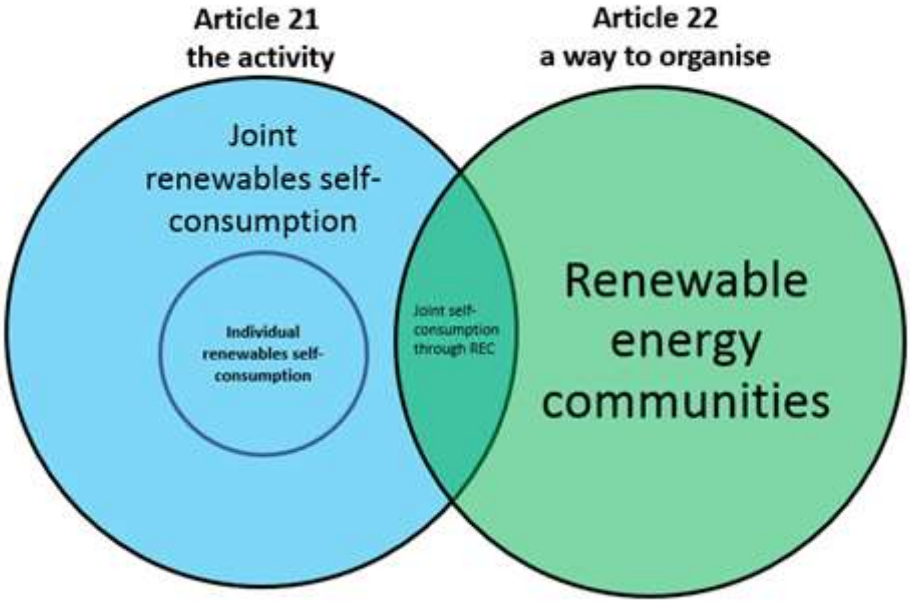
The way in which jointly acting renewables self-consumers may organise their activity is not addressed by the REDII. Therefore, it can be implied that Member States are free to allow such arrangements through the establishment of a legal entity, or through the formation of bilateral contracts. However, where collective self-consumption is carried out

by a REC or CEC, it must be done through a legal entity that complies with the EU level definitions around purpose, governance, control and ownership.

As mentioned elsewhere in this guidance document, energy communities are a way to organise participants to collectively engage in different activities – not a specific activity itself. Therefore, to reiterate what is elaborated in section 1.9.2 above, Member States should avoid defining RECs or CECs around collective self-consumption. **We recommend that national legislation elaborate activity-specific definitions for renewables self-consumption or jointly-acting renewables self-consumers within their own distinct chapter, section or piece of legislation**.

If a Member State is interested in creating a separate definition for community self-consumption that is different from collective self-consumption, this should be separate and additional to a broad, or umbrella, definition that describes the organisational attributes of an energy community (REC or CEC) regardless of the activity.

Figure 10: The relationship between renewable energy communities and jointly acting self-consumers under the REDII



4.1.3. Ensuring energy communities can engage in collective self-consumption

Collective self-consumption may be interesting for citizens living in the same building, apartment block, neighbourhood, or beyond wanting to set up a REC. At the very least, Article 21(4) of the REDII gives jointly acting consumers living in the same building or apartment block the right to generate, store and consume self-produced renewable electricity. Individual and jointly acting renewables self-consumers must also be able to sell excess production, including through:

- Power purchase agreements;
- Electricity suppliers; and
- Peer-to-peer arrangements.

Peer-to-peer trading is defined in the REDII. It means:

> "*The sale of renewable energy between market participants by means of a contract with pre-determined conditions governing the automated execution and settlement of the transaction, either directly between market participants or indirectly through a certified third-party market participant, such as an aggregator. The right to conduct peer-to-peer trading shall be without prejudice to the rights and obligations of the parties involved as final customers, producers, suppliers or aggregators.*"[57]

Jointly acting customers must also be allowed to share renewable energy produced by their installations. While peer-to-peer trading is characterised as "the sale of renewable energy", the lack of a proper definition of energy sharing leaves its status open. As such, the relationship between peer-to-peer sale of excess production and energy sharing is not clarified in the REDII. Nevertheless, peer-to-peer trading could be relevant to collective self-consumption in two different contexts:

1. As the means by which jointly acting customers share renewable energy that is produced on their site or sites between themselves.

2. As a means by which jointly acting customers sell excess renewable electricity (electricity that is not used collectively by all the participants) to other 'peers' as part of a larger virtual peer-to-peer trading platform.

These various ways of sharing and transacting collectively generated renewables are very interesting for RECs and CECs. There is a perception that collective renewables self-consumption does not go beyond the building or apartment level, while RECs and CECs allow for collective generation sharing beyond these boundaries. However, several Member States already have collective self-consumption schemes that go beyond the building or apartment level. Furthermore, many households may be interested in setting up a REC and CEC with their neighbours in their building.

In order to provide flexibility for citizens and market actors to create different business models associated with their needs and aims, **we recommend that Member States provide flexibility so that RECs and CECs have the option to engage in collective self-consumption at various levels, including buildings, apartments and beyond**. This can allow for different business models to develop, and allow for choice by citizens. Regardless of whether a legal entity is required or not, however, **we recommend Member States ensure the possibility for citizens to engage in collective self-consumption through the establishment of a legal entity that qualifies as a REC or CEC**.

[57] REDII, Art 2(18).

Example 43: Italy

In Italy's new law on collective self-consumption and RECs, these two concepts are developed distinct from each other. One of the key differences is the method of organization of the relationship between the participants. For collective self-consumption, relations must be regulated by a private law contract that ensures that all customers maintain their rights (including right to choose their supplier), that they can withdraw, and that identifies the delegated subject responsible for the distribution of the shared energy.

4.1.4. Geographical scope/proximity: different national models of collective self-consumption

Several EU countries have developed frameworks to promote collective self-consumption. Of these countries, most allow the activity beyond the minimum scope defined in the EU level definition.

Example 44: Social gains through virtual collective self-consumption in Greece[58]

Greece allows virtual net metering to incentivise collective self-consumption on a regional level. Virtual net metering was first introduced in 2017 allowing applications only to Public Authorities and Farmer associations. This system allows credits to be assigned to the electricity generated in one location, and for the credits to be bought, sold and/or transferred to the bill of an electricity customer at another location. The consumers do pay grid charges for the electricity transfer, but still it can greatly reduce the bills of those in need.

Greece has separate legislation for energy communities, which enables them to engage in this activity. Specifically, Energy Communities Law 4513/2018 specifies the rights of energy communities and citizens as members to apply for collective virtual net metering and it introduces special conditions for the participation of low-income households.

Virtual net-metering could make a huge difference in combating energy poverty in Greece, where well over 50% of people live in apartment blocks and 4 out of 10 households are struggling to pay energy bills. Greenpeace Greece is proposing a 10-year social solar programme based on existing Greek energy laws on virtual net-metering. This would buy households struggling with energy poverty a small PV system to be installed on their roofs or in a nearby PV park. This would enable these households to become self-sufficient and stop relying on electricity consumption subsidies. Consumers benefiting from this programme could reduce their energy bills by €280-315 annually. At only half the cost of the current social tariff programme, social solar is a win-win for the climate, for efficient government spending, and reducing energy poverty.

Other Member States that provide for a broader scope for participation in collective self-consumption do so on a more local, or neighbourhood level.

[58] REScoop.eu, Friends of the Earth Europe, Greenpeace EU, Energy Cities (2018). *Unleashing the Power of Community Renewable Energy*, p 24. Available at https://www.rescoop.eu/blog/unleashing-the-power-of-community-renewable-energy?categoryId=381.

Example 45: Collective self-consumption

France has recently enabled collective self-consumption. In 2015, legislation empowered the government to design a framework for individual and collective self-consumption through an ordinance and a Decree 2017-676. The Decree originally limited participation in collective self-consumption to participants that had a connection point behind the same high voltage/low voltage transformer station. However, this criterion was too restrictive, and led to the result that two neighbours could not be part of the same collective self-consumption scheme because they were not located downstream of the same transformer station. Therefore, according to the new *Pacte* law and its implementation decree of 24 November 2019, the scope for collective self-consumption was extended to 2 km for an experimental period of 5 years. In addition, the 2019 Energy Climate Law modified the definition of collective self-consumption so that it would acknowledge collective self-consumption at the building level, as it is framed in the REDII. Therefore, France now has two categories of collective self-consumption.

In Italy, new legislation defines two separate concepts: collective self-consumption and RECs. For collective self-consumption, all consumers within the eligible area may participate. For non-household participants, self-consumption cannot represent the main commercial or professional activity of the participant. Total installed production cannot exceed 200 kW. The eligible geographical scope for participation in a collective self-consumption project is the same building or condominium.

In Portugal, the definition of REC contains a requirement that the members or participants be located in close proximity to the renewable energy projects that are owned and developed by the community. The legislation does not specifically define what is meant by 'close proximity', and for now projects are assessed on an individual basis by the Regulator. For now, RECs that perform collective self-consumption need to be located on the same tension level. This requirement is likely to be changed from 2021, where it may be possible to organise under the same low and medium tension level.

In Spain, self-consumption, including collective self-consumption, is allowed where the relevant energy generation facility is in the proximity of, or associated with, its consumer(s). This is expanded upon as being where the generation facility and consumer(s) are: connected to the same internal network (generally meaning they are both behind-the-meter) or linked through direct lines; connected to any of the low voltage lines coming from the same transformer station; connected at low voltage and are less than 500m metres apart; or are in the same cadastral reference.

4.2. Energy sharing

As EU legislation on energy sharing is vaguely worded, there are very few requirements for how legal frameworks for energy sharing should be transposed at the national level. Nevertheless, this does not discount the need to address a number of legal and regulatory details. As such, **we recommend Member States take into account the following issues as they develop primary and secondary legislation, and further regulations, for energy sharing by RECs and CECs**:

- Defining energy sharing
- Roles and responsibilities between grid operators and energy communities;
- How benefit sharing should be regulated;
- The protection of consumer rights in peer-to-peer relationships; and

- Dispute resolution within RECs and CECs.

Some, but not all, of these issues are dealt with below.

4.2.1. Conceptual framing – what is energy sharing?

There are still many questions about what energy sharing is. Both the REDII and the IEMD provide energy communities with a right to engage in energy sharing. However, there is no technical definition of energy sharing in the CEP. The recitals provide a vague interpretation of what energy sharing could look like. It states 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. **Electricity sharing enables members or shareholders to be supplied with electricity from generating installations within the community without being in direct physical proximity to the generating installation and without being behind a single metering point.**"*[59]

Member States will have wide discretion to design their own energy sharing schemes, either at local level, regional level or beyond. **We recommend Member States take an open and innovative approach and allow different models of energy sharing**. We identify at least three models that may be interesting for energy communities:

1. transactive – traditional supplier model;
2. netting models through a DSOs or an aggregator or supplier; or
3. digital platforms to transact energy between members (e.g. peer-to-peer).

Using a traditional supplier model would be the easiest way to allow energy sharing. Under such a business model, a REC or CEC would own renewable energy generation assets and, under a traditional supplier license, would sell that energy back to the members as a service.

Under a netting model, energy sharing would look somewhat similar to collective self-consumption. Using smart meters, the community, either by itself or through a third party, would virtually aggregate load profiles of the members, and then allocate, or distribute, portions of shared energy between the members according to an established distribution key, or agreement, between the members of the community. This allocation agreement may be influenced by rules established by the national regulator.

[59] IEMD, recital 46.

Example 46: Energy sharing in draft legislation in Luxembourg

Draft legislation in Luxembourg on RECs also contains a proposal for RECs to be able to share energy. A REC is entitled to share, in the renewable energy community, renewable energy produced by its production units without prejudice to the fees for network access, network usage fees and other charges and levies applicable to each member of the renewable energy community. The REC is allowed to allocate amounts of electric power to its members. Legislation would provide the possibility for RECs to freely define their own distribution model to determine which case data exchanges are required between the community and the distribution network manager. Alternatively, the DSO will make this allocation using a pattern of static and simple distribution to share the produced electricity. The model itself and its practical arrangements would need to be prepared by the Regulator in close consultation with the DSOs.

The REC would be authorized to delegate the organization of allocations and exchanges of energy between the members to a service provider.

Example 47: New energy sharing legislation in Italy

On 1 March, 2020, law n.8/2020 came into force in Italy, which aims at early transposition of Articles 21 and 22 of the REDII. In particular, the legislation introduces a legal framework for collective self-consumption (this framework is briefly mentioned above in Section 4.1.4), and for energy sharing by RECs. Importantly, the legislation separates collective self-consumption and RECs as two distinct concepts. It is meant to be experimental in nature in order to get more evidence of these new activities while legislation to fully transpose the CEP is being developed.

For energy sharing by RECs, participation in the REC may not constitute a SME's main commercial or industrial activity. Total installed production cannot exceed 200 kW. The scope of eligibility for participation is limited to withdrawal and entry points of consumers and renewable energy installations that are located on the same low voltage grid under the same medium/low voltage substation transformer. The shared energy is equal to the minimum, in each hourly period, between the energy produced and put in the renewable power plants and the energy withdrawn from all final customers. The energy is shared through instant self-consumption, that can also occur thanks to storage systems, realized into the perimeter established for the energy community. The general system charges shall be applied both to the energy withdrawn from the public grid from the final customers and to the shared energy.

In order to promote these new activities, the renewable power plants participating in collective self-consumption or renewables energy communities will be able to access a new tariff. Within 60 days from the 1st March 2020, the Ministry of Economic Development shall identify a feed-in tariff to reward the renewable power plants that participate in the above-mentioned experimental configurations.

Energy sharing could also extend to the use of digital platforms for peer-to-peer transactions of renewable energy between members of an energy community, with or without the use of technology such as block chain. Peer-to-peer trading is defined in the REDII. The REDII provides renewables self-consumers a right to sell excess production in

peer-to-peer trading of renewable energy.[60] This means that both individual and jointly acting renewables self-consumer have a right to trade excess electricity through peer-to-peer arrangements. However, peer-to-peer platforms can allow for trading of other distributed energy resources (DERs), such as electric vehicles, storage, and other sources of flexibility. Therefore, peer-to-peer need not stop at exchanging renewable energy.

Typically, peer-to-peer trading takes place on a virtual exchange or platform. This platform could be operated either by a private third party, or by a community-owned platform. Due to the vague formation of the language on energy sharing, there is no explicit link between energy sharing and peer-to-peer trading. Furthermore, due to the transactive nature of peer-to-peer energy sharing, there is a question whether this activity could be considered the sale of energy as opposed to sharing. There is no guidance in the REDII whether energy sharing excludes sharing through transactive relationships between the members. Nevertheless, peer-to-peer is an interesting opportunity for individual prosumers or communities to become part of broader marketplace. Therefore, **we recommend that Member States consider to include community-owned peer-to-peer trading platforms in their energy sharing frameworks, which also allow for individual renewables self-consumers and generators to participate** (e.g. through producer co-operatives).

Example 48: A proposal for energy sharing in Flanders, Belgium

In **Flanders, Belgium**, the Ministry is currently consulting on proposals based on recommendations from the energy regulator, VREG. In its consultation document, it aims to distinguish energy sharing from other similar activities such as renewables self-consumption and selling.

In particular, it explains energy sharing as the following: the allocation on a quarter-hour basis (or imbalance settlement period) of the indirect virtual parts of generated energy and always framed within a collective, such as an apartment building or an energy community. It is energy that is further flowing from where the main meter is shared. The total sub-volume may never exceed the production volume of the installation concerned per imbalance period. The modalities of allocation (sharing) of parts of the energy production are always laid down in an agreement. For example, energy sharing will apply to those customers who invest in production capacity but cannot enjoy direct self-consumption. When two active customers outside of a collective energy wish to exchange energy with each other, we speak of sales or delivery in accordance with the guidelines. Energy sharing will therefore be defined and regulated as an activity in the regulations.

As a point of contrast, the Ministry describes renewables self-consumption as the physical instantaneous consumption (behind the main meter) of the own energy generated by an active customer. Furthermore, the ministry includes peer-to-peer trading as a form of sale of energy under an agreement and on predetermined conditions.

[60] REDII, Art21(2)(a).

Example 49: A proposal for energy sharing in Germany[61]

In Germany, there are already various concepts of joint electricity production or shared electricity consumption under the names of 'Bürgerenergiegesellschaften' (citizen energy companies), 'Energiegenossenschaften' (energy cooperatives), 'Regionalstrom' (regional electricity), 'Community Strom' (community electricity), 'Quartiers- und Nachbarschaftsstrom' (quarter and neighbourhood electricity). However, none of these forms is really enabled to share electricity.

With a view towards the impending transposition of the REDII, the energy community sector in Germany has put forward a comprehensive proposal for realising a true energy sharing model. Under their proposal, a REC would be considered as one virtual electricity consumer whose electricity consumption is calculated on the basis of the cumulative consumer load that is not covered by electricity from its own renewable energy plants. As a virtual load profile customer, the REC assumes all energy-related obligations as a final consumer. The distribution grid operator calculates a virtual total consumer load profile per REC using a combination of measured data and standard load profiles. Costs and revenues incurred in the management of energy sharing are settled with the REC members. Hardship clauses for low-income households must be offered and the REC's primary purpose is not financial. A REC may be supported by an energy supply utility, which is responsible for the balancing group, buys in shortfalls on the electricity markets or sells excess electricity and takes over other energy management processes. A platform for decentralised trading could further enable the management of the REC, where utilities offer switching processes related to energy sharing.

4.2.2. Arrangements with distribution system operators

The REDII and the IEMD require Member States to ensure that DSOs cooperate with RECs and CECs to facilitate 'electricity transfers' within the community.[62] Therefore, specific arrangements will need to be developed between DSOs and energy communities regarding connection to, and use of, the public grid, as well as various roles and responsibilities that will be assumed by the community or by the DSO in the form of different services such as accounting. The IEMD states that DSOs are entitled to remuneration for these services, but that they must also be assessed by the national energy regulator. As such, an appropriate role or duty for national regulators to oversee arrangements between DSOs and CECs for energy sharing will need to be elaborated in national legislation.

The full extent and scope of relationships and roles assumed between DSOs and energy communities needs to be explored further. **We recommend that regulation of DSO-energy community roles and relationships ensure proportionality, and provide energy communities with sufficient autonomy to assume certain responsibilities directly, or to contract the performance of these roles out to a DSO or another suitable third party**.

[61] F Huneke, and S Nitzche (2020*). Impulspapier Energy Sharing* (Energy Brainpool), Report commissioned by Buendnis Buergerenergie e. V. (BBEn). Available at: https://www.buendnis-buergerenergie.de/fileadmin/user_upload/2020-03-06_EnergyBrainpool_Impulspapier-Energy-Sharing.pdf.
[62] IEMD, Art 16(1)(d); and REDII, Art 22(4)(c).

Example 50: Laying out responsibilities of DSOs in facilitating energy sharing

Draft legislation in Luxembourg contains a number of details on the role of the DSO and its relationship with a REC that wants to engage in energy sharing. First, if not performed by the REC itself, allocation of shared electricity production is performed by the DSO in a pattern of static and simple distribution. In order to conduct the activity of energy sharing, the REC must conclude an agreement with the DSO concerned based on a model contract. This must be developed jointly by the DSOs, submitted to the Regulator, and be subject to a consultation before it is approved. The agreement must specify at least:

- the identity and addresses of members of the renewable energy community;
- the concerned facilities;
- the key applied for the sharing of energy produced.

The agreement must be adapted every time there is a change to the membership/shareholding of the REC, the installations concerned, or the distribution key.

In Italy, under new legislation on collective self-consumption and RECs, responsibilities for the DSO relating to energy sharing are not elaborated. Instead, ARERA is required to take measures aimed at the cooperation of DSOs and the TSO (Terna S.p.A.) in order to operationalise the provisions about self-consumption and renewable energy communities, especially for communication of the measures for the shared energy.

5. Ensuring coherent regulation: Market access, a level playing field, and contribution to energy system costs

5.1. Access to suitable markets

Article 22(2)(c) of the REDII, and Article 16(3)(a) IEMD require Member States to ensure the rights of RECs and CECs to access all suitable markets on a non-discriminatory basis.[63] This requirement is worded broadly, implying that energy communities must be able to access any market as long as it is relevant to their potential activities. As a guide, Article 2(8) of the IEMD defines 'electricity markets' as "markets for electricity, including over-the-counter markets and electricity exchanges, markets for the trading of energy, capacity, balancing and ancillary services in all timeframes, including forward, day-ahead and intraday markets." This right would also apply to local flexibility markets.

We provide more context on these requirements below.

5.1.1. Wholesale (day-ahead, and intra-day markets) and balancing markets

Article 22(2)(c) of the REDII and Article 16(3)(a) of the IEMD require Member States to ensure that energy communities can access markets not just individually but also through an aggregator. This implies that market design rules need to allow energy communities to access different markets through a third party.

This differentiation is important, because most energy communities will experience significant difficulties gaining direct access to the market, either due to the complexity of the market or the technical nature of the community's projects. Some existing energy cooperatives engage in renewables production for the market, or provide retail supply of electricity and even demand response to their members. In these circumstances, the energy community is able to access the market directly, albeit often using a third party to take on certain responsibilities, such as balancing responsibility. However, most energy communities operate smaller renewable energy generation installations or have smaller loads to contribute towards providing flexibility. Therefore, access to a third party who can aggregate flexibility or production is often the only way to access the market.

Article 3(4) of the IEMD establishes a general rule for Member States to ensure a level playing field for access to wholesale markets. However, Article 7(2)(h) of the IEMR also requires day-ahead and intraday markets to be organised in order to ensure that all market participants can access the market individually or through aggregation. Furthermore, Article 6(1)(c) requires balancing markets to ensure non-discriminatory access to all market participants, both individual and aggregated, including from variable renewable energy production, demand response and storage.

[63] REDII, Art 22(2)(c); and IEMD, Art 16(3)(a).

Using these EU requirements as a basis, **we recommend that in designing their wholesale and balancing markets, Member States ensure that rules provide equal access to ensure aggregators of smaller generation units and consumption loads can participate.** These requirements will also need to be taken into account in the design of new network codes for demand response and flexibility, as well as the revision of existing codes.

5.1.2. Procurement of flexibility

The right for RECs and CECs to be able to access different markets also applies to new local flexibility markets. These markets will need to be developed in the coming years under provisions that encourage DSOs to procure flexibility through new market-based procedures. Article 32(1) of the IEMD requires Member States to establish regulatory frameworks and provide incentives so that DSOs procure flexibility services to help optimise system operation and help avoid unnecessary grid upgrades.

In turn, Article 32(2) requires DSOs, or the regulatory authority, to establish standardised market products and set specifications for how flexibility services are to be procured. These specifications must be non-discriminatory and ensure effective participation by demand response, storage and aggregation.

To ensure that RECs and CECs are able to participate in such markets, the development of standards, as well as relevant administrative procedures, will need to take account of the ability of energy communities to meet such standards or navigate procedures to ensure they are not excluded. This may require, for instance, that DSOs or regulators provide assistance or capacity building to energy communities. In any case, standards and procedures for participating in local flexibility markets, including prequalification, must be clear, simple, and transparent so energy communities easily understand them.

5.2. Ensuring an equal playing field

One key takeaway from the definition discussion is that RECs and CECs represent a different type of non-commercial market actor unique to the energy system. While the ownership and governance structures employed by energy communities can deliver a number of local socio-economic and environmental benefits, they may also experience more difficulties operating within traditional regulatory frameworks compared to traditional commercial market actors.

The recitals to the IEMD and the REDII acknowledge that unique characteristics of energy communities that set them apart from other traditional commercial market actors create challenges that affect their ability to participate in the market on a level playing field. Under recital 46 of the IEMD, "Citizen energy communities constitute a new type of entity due to their membership structure, governance requirements and purpose." Furthermore, recital 71 of the REDII states that "the specific characteristics of local renewable energy communities in terms of size, ownership structure and the number of projects can hamper their competition on an equal footing with large-scale players, namely competitors with larger projects or portfolios."

To address the lack of a level playing field, the IEMD states that CECs "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 CECs in a non-discriminatory and proportionate manner." The REDII goes further, stating that "[measures to offset the disadvantages relating to the specific characteristics of local [RECs] in terms of size, ownership structure and the number of projects include enabling [RECs] to operate in the energy system and easing their market integration."

The regulatory challenges that energy communities face will differ depending on the activity they perform. Below, we provide context for how Member States may create a level playing field for energy communities for different activities, namely renewables production and the supply, or sale, of renewable energy to members of the community.

5.2.1. Member States' obligations regarding non-discriminatory & proportionate treatment

It is clear that RECs and CECs will still need to comply with many obligations and responsibilities to be able to participate in the energy system. In particular, the IEMD and REDII ensure responsibilities and obligations are attached to activities such as supply and distribution, including balancing responsibility.[64] To make certain activities such as collective self-consumption, local supply, energy sharing, or peer-to-peer trading possible, certain responsibilities will need to be tailored to the size and non-commercial nature of energy communities.

Significantly, the IEMD requires Member States to ensure that CECs are "treated in a non-discriminatory and proportionate manner with regard to their activities, rights and obligations as final customers, producers, suppliers, DSOs or marker participants engaged in aggregation."[65] More specifically, Member States' enabling frameworks must ensure that RECs and CECs are subject to non-discriminatory, fair, proportionate and transparent procedures and charges, including with respect to registration and licensing.[66] This would justify, in certain instances, tailoring or adapting national regulations to the specificities of CECs so they are not disproportionately burdensome, unless there is objective justification for ensuring uniform treatment (e.g. distortion of competition, or security of supply).[67]

5.2.2. Ways to level the playing field for energy communities

Viewed through the lens of equal treatment, non-discrimination or proportionate treatment can be ensured in a number of ways. First, before designing measures or amending regulations, the issue must be identified. Subsequently, the measures adopted should be proportionate to the weight of the competitive disadvantage experienced by the energy community. This could justify one of several different approaches to the application of responsibilities towards RECs or CECs:

- Differentiation – Where a different set of rules is applied to energy communities.

[64] IEMD, Art 16(3)(c); and REDII, Art 22(4)(b).
[65] IEMD, Art 16(3)(b).
[66] IEMD Article 16(1)(e) and recital 46; and REDII, Art 22(4)(d).
[67] M Jasiak (2018). "Energy Communities in the Clean Energy Package: Regulatory Framework for Collectively Involving Citizens in the Energy Transition," *European Energy Journal*, Volume 8, Issue 1, Number 26, p 34.

- **Reduced/simplified burden** – Where certain obligations are not fully applied or certain standards are lowered for energy communities, or where administrative procedures are streamlined to make them easier to meet or understand.
- **Flexibility** – Providing energy communities with alternative means of complying with the same obligations as other market actors.

- **Capacity building support** – Where the regulator or government provides administrative support, technical advice, assistance, or funding for outside advice on matters related to licensing, registration, or finance.

We recommend that Member States look at the above approaches for addressing potential registration and licensing issues experienced by energy communities. Due to their stricter participation, decision-making and local proximity requirements, there is an even stronger argument for providing RECs with different regulatory treatment.

Furthermore**, we recommend that Member States consider approaches to different or simplified regulatory treatment of energy communities based on the results of their assessment of national potential and existing barriers to the development of RECs under Article 22(3)**. This would provide for a suitable opportunity to assess each activity of energy communities, to determine disproportionate burdens, and to suggest ways to remove those barriers. In particular, transposition legislation should authorise or require regulatory authorities to assess different supplier obligations as they relate to certain activities, and to provide exemptions or otherwise modify certain regulatory requirements for RECs and CECs.

Example 51: Exempting REC activities from licensing obligations in Flanders, Belgium

In **Flanders, Belgium**, in its recommendations to the Ministry on transposition of the CEP, the Regulator, VREG, proposes to exempt RECs from having to obtain a supplier license in the context of renewables self-consumption and peer-to-peer energy sharing within the community. VREG also recognizes that not all traditional supplier obligations (e.g. public service obligations, provision of information on the origin and environmental consequences of the energy supplied, and reporting obligations) can be easily imposed for activities such as self-consumption and peer-to-peer supply. While VREG does not explicitly state which of these obligations should be exempted for RECs, they advise for the need of the regulator to perform such an evaluation.

Differentiation

Under this approach, CECs and/or RECs would be eligible for different treatment (e.g. different set of rules). This is already provided for in the REDII with regard to taking into account specificities of RECs in support schemes. This requirement could also serve as the basis for providing energy communities with simplified, or priority, access to grid connections.

Example 52: Helping community renewables obtain grid access in Greece and Ireland

In Greece, Article 11 of the 2018 law on energy communities provides a number of financial incentives and support measures for energy communities, which aim to level the playing field for participation in certain activities. These include:

- Priority treatment in grid connection applications,[68] production licenses and approval of environmental permits;
- Discretion by the Ministry to provide privileges to energy communities in competitive bidding procedures for renewables support, including exemption from participation; and
- Exemptions from annual fees that are charged to maintain a generation license.

In Ireland, the government has acknowledged the extreme difficulty of REC projects that want to develop a renewables generation project to compete with other market actors for a grid connection. While looking at potential revisions to its energy act, the government has tasked the National Energy Regulator with proposing 15 different community projects that will receive special facilitation to receive a grid connection. This will include allowing an application without planning, and expedient processing.

Reduced/simplified administrative burdens

The CEP will require decision-makers to revisit regulations, particularly those that relate to licensing to ensure they are not overly burdensome or disproportionate for energy communities. For instance, in many Member States procedures and requirements for energy communities to become a licensed retail supplier need to be simplified. Responsibilities that do not pertain either to security of supply or consumer protection will need to be eased for these energy communities, for instance requirements around bank guarantees, licensing and administration fees, reporting, and the choice of a certain legal form. For RECs or CECs that only want to supply locally, or engage in peer-to-peer trading with each other, regulations may need to exempt RECs and CECs from becoming balancing responsible, or at least be tailored for the regional or local level, rather than nationally.

Some Member States such as Belgium, Spain, Italy and the Netherlands, already have simple regulations to become a licensed supplier, while in other Member States such as the UK, obtaining license agreements is extremely complex and burdensome. This is confirmed by the fact that 'license-lite' legislation was adopted in the UK in 2010 to simplify obligations on small entrants, yet no successful supplier licenses have been issued under the framework, despite high interest from community energy groups in becoming suppliers.[69] More work may be needed in this area to compare licensing regulations and procedures across different Member States and how they impact RECs and CECs.

[68] Due to reports of misuse of priority grid access privileges by larger companies, in early 2020 the legislation on energy communities was amended in order to resetrict this privilege to non-profit entities that have collective self-consumption as their main activity.

[69] D Hall and K Roelich (2015). *Local Electricity Supply: Opportunities, archetypes and outcomes, report produced for the UK Department for Energy and Climate Change.* Local Supply Working Group (University of Leeds), p 11.

Example 53: Reducing financial burdens on generation and supply activities in Greece

In Greece, under Article 11 of the 2018 law on energy communities, which provides a number of financial incentives and support measures for energy communities, the amount of a guarantee required to obtain a supply license is reduced by 50%, and the reduced minimum capital required is lowered to €60,000.

Flexibility

Where certain responsibilities cannot be done away with, their application can be flexible so that they can be met through different ways. For example, under the IEMR energy communities may choose either to become a balancing responsible party or to delegate such responsibility to a third party of their choice.[70] This second option is particularly important because the barriers to become balancing responsible are very high. Member States may also choose to exempt small installations with an installed capacity less than 400 kW from such a requirement.[71] Legislation or regulation should be assessed to see which responsibilities can be permitted to be outsourced to third parties. Not only would this potentially reduce regulatory burden for RECs and CECs, but it could also provide opportunities for other market actors to provide services to communities.

We also recommend that Member States consider modifying how certain obligations such as reporting requirements and solvency requirements are met, for instance to take into account how non-commercial businesses, such as cooperatives, operate in the market.

Example 54: Flexibility in Luxembourg

Under Luxembourg's draft law concerning renewables self-consumption and RECs, the sale of excess renewable electricity fed into the grid by a REC can be done through individual suppliers' members or shareholders of the renewable energy community, or if the statutes provide, through a common provider. The REC may also sell its excess production of renewable electricity by renewable electricity purchase agreements provided that it performs the function of balancing, including the financial aspects of the energy adjustment and balance. However, RECs may also delegate this responsibility, according to certain conditions.

Capacity Building support

Where rules and regulations cannot be simplified or reduced for RECs and CECs, we recommend that governments consider setting up programmes to provide capacity building support for energy communities in developing different activities. First, Member States should consider establishing mechanisms and/or providing resources to relevant authorities (e.g. local, national, regulatory) so that they can give expert technical advice to new community projects. Second, Member States should make financial resources available d to non-governmental organisations (NGOs) and other local agencies or companies (e.g. law firms, consultancies) so they can provide pro-bono advice to projects.

[70] IEMR (n 3) Art 5(1).
[71] IEMR, Art 5(2)(b).

Example 55: Ireland

Under Ireland's new RESS1 Scheme, the government has committed to providing a range of supportive resources under an enabling framework to make sure that RECs can address capacity issues in developing renewables generation projects. This includes:

- Access to trusted intermediaries that can pair community projects with mentors
- Access to advisors with specialist expertise that can provide technical expertise, financial guidance and legal advice
- An information warehouse to provide community projects with relevant information
- Financial supports (including feasibility grants and soft development loans)

5.3. Regulating for innovation

Beyond considerations for allowing RECs and CECs to operate in equitable market conditions, it can be beneficial for regulators to provide opportunities for innovation for these emerging market actors. One means of supporting innovation is through the use of regulatory sandboxes. While regulatory sandboxes are not tools specifically aimed at energy communities, they can help address a lot of the regulatory issues that energy communities face. The CEP does not contain any explicit language on regulatory sandboxes. Nevertheless, regulatory sandboxes can be useful in testing out new technological, business model and regulatory approaches in a limited setting, without overhauling regulation.

This section outlines what sandboxes are, their purposes, and examples of sandboxes in EU energy markets that Member States can draw on to support RECs and CECs.

5.3.1. What is a regulatory sandbox?

A regulatory sandbox is an experimental space where market participants can test energy market services and business models in the real market and with real consumers, but closely supervised by the regulator.[72] Unlike a waiver or regulatory pilot, a sandbox is generally a bespoke set of regulatory conditions tailored to a specific initiative. Sandboxes can therefore cover a broad range of activities.[73]

The purposes of setting up a sandbox are two-fold: first, to allow innovators to test new technologies and business models that are not entirely compatible with the existing regulatory framework, and second, to allow regulators to learn about particular innovations which can then inform future regulation.[74] Regulatory sandboxes provide important links between regulators, policy-makers and the private sector. They allow policy-makers and regulators to stay apprised of business innovation and new market practices while also

[72] T Schittekatte (2020). *Regulatory Sandboxes in the Energy Sector – The What, the Who and the How* (Florence School of Regulation). Available at https://fsr.eui.eu/regulatory-sandboxes-in-the-energy-sector-the-what-the-who-and-the-how/.
[73] *Ibid.*
[74] *Ibid.*

understanding and managing the regulatory risk involved.[75] Sandboxes can therefore foster development of new practices and business models, while protecting consumers from regulatory risks. They also help to reduce uncertainty for both market participants and regulators.

5.3.2. Regulatory sandboxes in the EU

Regulatory sandboxes in the EU are generally focussed on electricity retail markets. Projects typically apply for a sandbox to allow matching of local generation and demand through innovative tariffs or peer-to-peer trading. [76] They can also allow energy communities to act as suppliers under different arrangements to what would normally apply, such as in the Dutch programme described below.

Experience in the EU has shown that in developing regulatory sandbox schemes, policy-makers need to balance the interests of promoting innovation and testing, while also ensuring non-discrimination. It is therefore important that sandboxes are limited (for example, geographically, in terms of the number of customers and in time).[77] It is also vital that sandboxes ensure customers are not disadvantaged, and that the function of the energy system is not compromised through the experimental process.

While enabling national level policy is essential for sandboxes, the Agency for the Cooperation of Energy Regulators (ACER) has noted concerns raised through consultations that there are no equivalent enabling provisions at EU level.[78] As a result, in its *The Bridge Beyond 2025* report, ACER proposed that it would provide for an 'EU umbrella' for the sandbox approach, allowing time-limited derogations to relevant law.[79] This would be with a view to generate information that is useful in the public interest and where the derogation poses no significant risk of a material impact on the wider market.[80]

Example 6.3.3: Regulatory sandboxes in UK and NL

The UK energy regulator, Ofgem, introduced the Innovation Link programme in 2016. The programme was open to a variety of energy market participants and has attracted energy communities such as the Chase Solar Community as well as multinational actors such as BP.

Ofgem has run two calls for applications for the programme, both in 2017 – each for a duration of two years. Seven projects have been awarded a sandbox, all but one of which sought to maximise

[75] *Ibid.*
[76] *Ibid.*
[77] Comments by Luuk Spee of ACM, during webinar by the Florence School of Regulation 'Innovation Through Regulatory Experimentation – Sandboxes and Beyond' (20 April 2020). Recording available at: https://fsr.eui.eu/event/innovation-through-regulatory-experimentation-sandboxes-and-beyond/.
[78] Agency for the Cooperation of Energy Regulators (ACER) (2019). *The Bridge Beyond2025 – Conclusions Paper*, p17. Available at: https://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/SD_The%20Bridge%20beyond%202025/The%20Bridge%20Beyond%202025_Conclusion%20Paper.pdf.
[79] *Ibid.*
[80] *Ibid.*

the benefits of locally-produced or stored electricity for local consumers.[81] One of the lessons taken from the programme has been that sometimes the regulatory conditions sought were beyond Ofgem's remit, but instead related to industry code bodies or Government decisions.[82] Ofgem is working with rule-makers to extend the reach of the sandbox service across the energy sector. The next application window with expanded scope has been delayed to July 2020 at the earliest.[83]

In the Netherlands, the executive order 'experiments decentralised, sustainable electricity production' (EDSEP) entered into force in 2015, which invited homeowners' associations and energy cooperative to propose projects that are not permitted under existing regulations. The goals of the order were to stimulate decentralised renewable energy, make more efficient use of the existing energy infrastructure and increase the involvement of energy consumers with their own energy supply.[84] A sandbox under the programme is for a four year period.

The EDSEP programme allows homeowner association and energy cooperatives to obtain exemptions from Dutch law to carry out functions of grid operators and avoid the normal permitting requirements for energy supply.[85] They can carry out sandbox experiments either with up to 500 users (in which case the project has only one grid connection and acts as a network), or up to 10,000 users and 5MW generation capacity (in which case the project does not act as a network).[86] A total of 15 projects currently are active under the programme.[87] The programme started in 2015 and ended in 2018, but the Dutch government has proposed a new executive order building on the original scheme.[88]

We recommend Member States consider providing a regulatory sandbox programme that is accessible to energy communities (where they do not already have one). Allowing energy communities to apply for time-limited special regulatory conditions relating to, for instance, tariff settings and supplier obligations, could assist innovation and development of new business models.

5.4. Contribution to energy system costs

The main way for energy system costs to be recouped from customers connected to the grid, including active customers and energy communities, is through network charges.

[81] This is out of 67 applicants. Ofgem has noted that the low numbers are not due to unreasonable sandboxing requests, but rather the requests being for regulatory conditions that were already available under existing law. *See* Ofgem (2018). *Insights from Running the Regulatory Sandbox,* p.1. Available at: https://www.ofgem.gov.uk/system/files/docs/2018/10/insights_from_running_the_regulatory_sandbox.pdf, For case studies of the projects, see https://www.ofgem.gov.uk/publications-and-updates/innovation-link-case-studies.
[82] Ofgem (2018) (n 80) p 2.
[83] *Ibid*, at p 3.
[84] E C van der Waal, A M Das, T Van der Schoor (2020). *Participatory Experimentation with Energy Law: Digging in a 'Regulatory Sandbox' for Local Energy Initiatives in the Netherlands*. Energies, p 3.
[85] *Ibid*, at p 10.
[86] Regulation of the Minister of Economic Affairs of 2 April 2015, no. WJZ / 15017150, opening the application period for exemptions from experiments in decentralized sustainable electricity generation (Opening Regulations for experiments in decentralized sustainable electricity generation), Arts 2 and 3.
[87] Dutch Ministry of Economic Affairs and Climate (2018). *Experiments Electricity Law 2015-2018*. Available at: https://www.rvo.nl/subsidies-regelingen/experimenten-elektriciteitswet
[88] Dutch Ministry of Economic Affairs and Climate. *Experiments Electricity and Gas Act.* Available at https://www.rvo.nl/subsidie-en-financieringswijzer/experimenten-elektriciteitswet-en-gaswet

Network charges can take a variety of forms and are very diverse between, and even within, different Member States.

The design of system charges has significant consequences for incentives provided for energy communities and other potential active customers, as well as the costs recovered from them by the DSO. Given the potential for active consumers, both on an individual and collective basis, to contribute to more efficient system operation, **we recommend that policies and regulations on network charges are developed in a comprehensive manner, not just including energy communities but other types of active customers and distributed energy resources (DER)**.

Article 18 of the IEMR is the key provision of the CEP dealing with network tariff design.[89] It covers a broad range of requirements for the formulation of distribution and transmission network charges. There are also key requirements in the REDII and IEMD requiring RECs and CECs to be subject to transparent, non-discriminatory and cost-reflective network charges and for those charges to encourage operational efficiency and support flexibility in the network.[90] This should ensure they contribute in an adequate and balanced way to the overall cost sharing of the system.

The relevant provisions of Article 18 that are likely to have particular legal significance for RECs and CECs are outlined below, along with some interpretive guidance on how this can be transposed into national legislation.

5.4.1. The IEMR

Article 18 contains a number of principles that must be taken into account in developing national network tariffs for all customers connected to the grid. It is clear that network tariffs design should balance the competing goals of encouraging flexible, efficient operation while also being transparent, non-discriminatory and cost-reflective.

Transparency

Charges applied by network operators including for connection, use and related network reinforcements must be transparent.[91] No guidance is provided on what would satisfy this requirement. However, transparency can be interpreted as meaning that network charges should be coherently explained to market participants and the methodologies for their calculation should be readily accessible and understandable. **We recommend that Member States help ensure transparency by consulting the public on proposed charges, particularly for energy communities and other active customers, and provide sufficient information in explaining these methodologies**.

Non-discrimination

Charges must not discriminate either positively or negatively against energy storage or aggregation and shall not create disincentives for self-generation, self-consumption or participation in demand response.[92] In EU law, the principle of non-discrimination requires that like cases be treated in the same manner, so that relevant entities are not at a

[89] IEMR, Art 18(1)-(2) and (7).
[90] IEMD, Art 16(1)(e); and REDII, Art 22(4)(d).
[91] IEMR, Art 18(1).
[92] IEMR, Art 18(1).

disadvantage in comparison with others, unless such differentiation is justified by the existence of substantial objective differences.[93]

The requirement for non-discrimination against storage and aggregation therefore indicates that the tariffs applying to them should be the same as tariffs applicable to similar grid functions. Since both storage and aggregation fulfil functions that were traditionally carried out by a range of different technologies and network participants, it will be necessary to consider each of those functions in evaluating the appropriate tariffs for these technologies. For instance, in addition to providing reserve capacity, battery storage can also carry out frequency and ancillary services that would traditionally have been the function of baseload generation. These technologies should therefore be subject to tariff charges that take account of their value to grid operation and maintenance.

Cost-reflectivity

Charges for network access, connection, use and related network reinforcements must be reflective of actual costs incurred insofar as they correspond to those of an efficient and structurally comparable network operator and are applied in a non-discriminatory manner.[94] While there is no EU legal definition of 'cost-reflective', it is a general principle that tariffs should reflect the cost a consumer imposes on the network.[95] In light of Article 18(1), cost-reflective can be taken to mean reflecting actual costs or savings incurred by a network operator in serving a customer, where those costs would have been incurred by an efficient and structurally similar DSO. This indicates that network operators should use reasonable endeavours to accurately assess the future demand across their networks and ensure they are built according to that assessment, so that network costs and charges are justified and not excessive.

Efficiency first and flexibility

Tariff methodologies must provide appropriate incentives in the short and long run to increase efficiencies (including energy efficiency), foster security of supply, support efficient investments and related research activities, and facilitate innovation in the interest of consumers in areas such as digitalisation, flexibility services and interconnection.[96]

This means that tariffs should incorporate the unavoidable costs network operators incur, while incentivising accurate forecasting of future network needs and avoiding over-investment and other overspending. Cost-efficient operation of a network can be taken to mean operation that will lead to the overall lowest final cost for serving the electricity needs of all consumers. This includes taking take into account services that active customers, including RECs and CECs, can provide such as local storage and flexible distributed generation to support cost-efficient operation of the network.

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[93] CJEU, Case T-255/01, *Changzhou Hailong Electronics & Light Fixtures and Zhejiang Yankon v Council*, ECLI:EU:T:2003:282, para 60.
[94] IEMR, Art 18(1) and (7).
[95] T Schittekatte and L Meeus (2018), "Introduction to Network tariffs and Network Codes for Consumers, Prosumers and Energy Communities", *FSR Technical Report*, p 7.
[96] IEMR, Art 18(2). Art 18(8) also refers to the requirement for tariff methodologies to provide incentives to DSOs for cost-efficient operation of their networks.

5.4.2. Network charges for different activities of RECs and CECs under the IEMD and REDII

The IEMD and the REDII both provide general provisions for how RECs and CECs should contribute to energy system costs. There are also provisions for specific activities, including renewables self-consumption and energy sharing. Overall, there are only minor variances between the provisions on network charges for CECs, RECs, and their different activities. As such, the same principles should apply to the network charges they pay. Furthermore, such charges should be evaluated and decided through the same regulatory process, which is covered in the next section.

Article 16(1)(e) of the IEMD requires Member States' enabling frameworks to ensure CECs are "subject to transparent, non-discriminatory, and cost-reflective network charges in accordance with Article 18 [of the IEMR], ensuring they contribute in an adequate and balanced way to the overall cost sharing of the system." This can be interpreted as meaning that network charges should take into account the positive contributions as well as the costs that CECs deliver to electricity networks, in light of their particular activities.

Article 22(4)(d) of the REDII goes further, stating that enabling frameworks must ensure RECs are "subject to relevant charges, levies and taxes, ensuring they contribute 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 resources." This additional wording in the REDII makes clear that charges for RECs need to account not just for costs but also potential benefits they can provide to the energy system through their activities.

Treatment of CECs as active customers and renewables self-consumers

With regard to consumption of self-generated electricity, Member States are required to ensure that CECs are treated like active customers in accordance with Article 15(2)(e) of the IEMD.

Article 15(2)(e) requires that active customers be subject to network charges that account separately for the electricity fed into the grid and the electricity consumed from the grid.[97] This is to ensure they contribute in an adequate and balanced way to the overall cost sharing of the system. CECs will therefore not likely be able to benefit from traditional net metering (whereby self-generators are able to deduct payment for any electricity they export to the grid from any electricity they import from the grid, for the same kilowatt hour cost, regardless of spot prices). In particular, Member States will not be permitted to develop new net first generation metering programmes after 31 December 2020, while after 31 December 2023 Member States with existing net metering programmes will need to modify them so that they comply with separate accounting requirements of Article 15(2)(e).[98]

The REDII contains special rights for renewables self-consumers regarding charges. Specifically, Member States must ensure that renewables self-consumers, both individually or through aggregators:

- Are not subject to discriminatory or disproportionate charges, and to network charges that are not cost-reflective;[99]

[97] This must be in accordance with Article 59(9) of the IEMD and Article 18 of the IEMR.
[98] IEMD, Art 15(4).
[99] REDII, Art 21(2)(a)(i).

- In relation to self-generated electricity from renewables on their premises, are not subject to any charges or fees;[100] and
- Receive remuneration for self-generated renewable electricity that is fed into the grid, which reflects the market value of that electricity and which 'may' take into account the long-term value to the grid, environment and society.[101]

These provisions cover not just charges but also remuneration for excess self-generated renewable electricity that is fed into the grid. Other than a general requirement for charges to be cost-reflective, renewables self-consumers cannot be charged for self-generated renewable electricity that is consumed on-site. This, however, does not address taxes, which is a competence of Member States. These provisions also encourage Member States to look at the overall value that self-production can provide the grid, society and the environment. This is covered below.

These rights must be ensured for installations with an installed capacity below 30 kW. Furthermore, Member States have discretion to differentiate between individual and jointly acting renewables self-consumers. As such, the ability of RECs and CECs to benefit from these rights might be somewhat limited, especially if they have larger generation installations. Nevertheless, **we recommend that Member States equally apply these provisions in a similar manner so that individual renewables self-consumers and citizens that participate in RECs have equal opportunities**.

Energy sharing

Article 16(3)(e) states that where electricity is shared, this must be without prejudice to applicable network charges, tariffs and levies, in accordance with a transparent cost-benefit analysis of distributed energy resources developed by the competent national authority. Article 22(2)(b) of the REDII states that energy sharing must be subject to the other requirements in Article 22 and to maintaining the rights and obligations of the REC members as customers.

Taken together, this would mean that for RECs and CECs would both be subject to the same obligations to contribute in a fair way to energy system costs, while these costs are also required to take into account both costs and benefits to the system that activities of RECs and CECs entail. This means that to the extent RECs and CECs can save costs or provide other system benefits, they should be able to receive economic incentives, for instance in the form of reduced network charges or other fees. Furthermore, RECs and CECs should be able to be remunerated for excess production that is not shared by the community and is exported to the grid. This issue is covered below.

[100] REDII, Art 21(2)(a)(ii).
[101] REDII, Art 21(2)(d).

Example 56: Energy sharing in Italy

Under Italy's new law on collective self-consumption and RECs, the general system charges shall be applied both to the energy withdrawn from the public grid from the final customers and to the shared energy. Nevertheless, the regulator, ARERA, is required to identify the value of the tariff components, as well as the tariff which technically is not applicable to the shared energy, because such energy is instantaneously self-consumed in the same portion of LW grid and, for this reason, it is equivalent to the self-consumption in situ. Furthermore, an incentive tariff for remuneration of these installations must be developed. All charges are subject to monitoring by the Regulator, which allows it to modify these components based on need and impacts on the system. There is also a requirement that incentives should take into account the overall balance of the charges in the bill and the need not to increase the overall costs while there is a requirement that this scheme should not create any greater burdens for public finance.

5.4.3. Assessing costs and benefits of different activities to the grid: cost-benefit analyses of distributed energy resources

With storage, demand response, digitalization and advanced metering systems, active customers not only have the opportunity to export excess renewable electricity to the grid – they can now provide services that help the DSO operate the grid more cost-effectively in the long-term. Therefore, while it is clear that all active customers, including RECs and CECs, must contribute in a fair, adequate and balanced way to energy system costs, it is also clear that such charges must account not just for costs but also benefits of the activities these actors perform. This is also relevant for remuneration, for instance of excess self-produced electricity from renewables, which is fed into the grid. Both the IEMD and the REDII require cost-benefit analyses of distributed energy resources in determining system charges for RECs and CECs.

In a recent briefing, The International Renewable Energy Agency (IRENA) highlighted what it calls 'net billing', that is "a way to charge but also compensate prosumers based on the actual market value of electricity, balancing what they consume against what they inject into the grid."[102] It is based on assigning a high value to electricity injection from distributed renewable sources into the grid when this is most needed, while keeping the system in balance. Such valuation can therefore vary with time, location, grid characteristics or supply and demand situation, among other factors. In addition to benefitting the individual consumer, the method needs to maximise the benefits of distributed generation for the system.[103]

While a cost-benefit analysis is a commonly-used economic tool, its application in evaluating the value of DER is somewhat new, and has not previously been a requirement in EU legislation. To date, no such cost-benefit analyses have been developed by any regulatory authorities in Europe, although there have been a few experimental pilot

[102] International Renewable Energy Agency (IRENA) (2019). *Net Billing Schemes – Innovation Landscape Brief*. Available at: https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2019/Feb/IRENA_Net_billing_2019.pdf?la=en&hash=DD239111CB0649A9A9018BAE77B9AC06B9EA0D25.

[103] *Ibid*, p 11.

studies.[104] In the United States regulators from different states are looking closely at how to identify and assess different distributed energy resources and their potential costs/benefits.[105]

Given the lack of guidance provided in the IEMD as to how a cost-benefit analysis should be completed, it is useful to look at how other jurisdictions have approached the issue.

Example 57: New York, USA

As part of its Reforming the Energy Vision (REV) project, New York State developed an 'Order Establishing the Benefit Cost Analysis Framework' (the Order).[106] The Order is intended to help utilities properly evaluate different values of distributed energy resources and how they compare to traditional and conventional approaches to network development, operation and cost-recovery. The Order describes some key principles for cost-benefit analyses, namely, the analysis should:[107]

- be based on transparent assumptions and methodologies listing all benefits and costs including those that are localised and more granular. This includes accounting for externalities caused by emissions that are not reflected in the wholesale price of electricity;[108]
- avoid combining or conflating different benefits and costs;
- assess portfolios rather than individual measures or investments (allowing for consideration of potential synergies and economies among measures);
- address the full lifetime of the investment while reflecting sensitivities on key assumptions; and
- compare benefits and costs to traditional alternatives instead of valuing them in isolation.

The Order also mentions some additional points to consider when assessing costs and benefits:[109]

- assessments of costs and benefits should be based on the impact on society as a whole rather than individual stakeholders;[110]
- benefits and costs that should not or cannot be reflected in the above assessment should be clearly identified. The outcomes of the analysis should allow for a degree of judgment and where appropriate a qualitative assessment of non-quantified benefits; and
- the analysis should reflect consideration of externalities (such as environmental and social benefits) quantifiably if feasible but otherwise qualitatively.

[104] *See* e.g. N Poize (2019). *Cost benefit analysis – Collective self-consumption project on the pilot area of Saint-Julien-en-Quint (Auverne-Rhone-Alpes)*. Énergie Environnement; and D van der Vlies, P van Breevpoort and T Winkel (2018). *The Value of distributed Solar PV in Spain* (Greenpeace EU).
[105] *See* National Association of Regulatory Utility Commissioners (NARUC) (2016). *Manual on Distributed Energy Resources Rate Design and Compensation.* Available at: https://pubs.naruc.org/pub/19FDF48B-AA57-5160-DBA1-BE2E9C2F7EA0.
[106] Issued 21 January 2016 by NYS Public Service Commission, Case 14-M-0101. See https://nyrevconnect.com/rev-briefings/value-der-pricing-distributed-resources/.
[107] *Ibid*, p 2.
[108] *Ibid*, p 17.
[109] The Order includes analysis on externalities and non-energy benefits, operational and societal non-energy benefits, impacts on wholesale prices, and appropriate discount rate to apply.
[110] *Ibid*, p 12.

Example 58: California, USA

In California, legislation (Assembly Bill 327) was passed in 2013 in order to require utilities to identify different services distributed energy resources can provide to the grid and environment. Each utility is required to develop a 'distribution resources plan' to identify the optimal location for the deployment of different types of distributed energy resources. Furthermore, the plans must, among other things:

"*evaluate the locational benefits and costs of distributed energy resources located on the distribution system, including reductions or increases in local generation capacity needs, avoided or increased investments in distribution infrastructure, safety benefits, reliability benefits, and any other savings the self-generated renewable electricity provides to the grid or costs to final customers*."

In order to assist such efforts, the energy regulator in California, the CPUC, is developing a methodology along with utilities that will allow them to evaluate different values from distributed energy resources, and to develop appropriate forms of remuneration. The CPUC subsequently established a working group to develop a locational net benefits analysis. A first draft was submitted in 2018, and work is still ongoing.

Importantly, the IEMD and REDII state that the cost-benefit analyses for DER should be conducted by the relevant 'national authorities'. However, this is not defined and so Member States may have discretion in their transposition to select the type of national authority to complete the cost-benefit analysis. **We recommend that the responsible authority to conduct a DER cost-benefit analysis should be an independent body with energy market expertise, in particular the national energy regulatory authority**. This would exclude national ministries or legislative bodies. As cost-benefit analyses are likely to be political, they need to be undertaken by an institution that can ensure transparency, independence, and accountability. **We recommend that Member States write into national legislation transposing the IEMD and REDII a duty for the national regulatory authority or another independent, accountable, specialised agency to conduct a DER cost-benefit analysis**.

5.4.4. Transparency in calculating network tariffs for energy communities

Under Article 59(9) of the IEMD, regulatory authorities must make the detailed methodology and underlying costs used for the calculation of relevant network tariffs publicly available, while preserving the confidentiality of commercially-sensitive information.

Implementation and enforcement of this requirement will be a crucial means of increasing understanding of the cost basis for network charges, and making sure DSOs are properly accounting not just for costs but also benefits that RECs and CECs can provide the energy system. Having access to tariff calculation methodologies will also allow RECs and CECs to better understand their financial exposure and anticipate future costs and risks.

In terms of the exemption for commercially-sensitive information, this should be interpreted narrowly. The Court of Justice of the European Union (CJEU) has not established an exhaustive list of what constitutes commercially sensitive information. However, it has given guidance on how to apply similar exemptions from disclosure. The CJEU has stated that it is not possible to regard all information about a company and its business relations as

requiring the protection that must be guaranteed to commercial interests.[111] Rather, it must be shown that the document concerned includes elements that may, if disclosed, 'seriously undermine the commercial interests of a legal person'.[112] The CJEU notes that this is the case, in particular, when a document contains commercially-sensitive information relating, for instance, to the commercial strategies of the undertakings involved, to their customer relations, or information particular to that undertaking that reveals its expertise.

It would be very difficult to show that disclosure of any aspect of the 'detailed methodology and underlying costs used for the calculation of the relevant network tariffs' under Art 59(9) of the IEMD would in itself 'seriously' undermine the commercial interests of a network operator in this sense. There, **we recommend that Member States disclose in an easily accessible form the assumptions and modelling used in determining network tariffs applicable to energy communities.**

[111] CJEU, Case T-545/11 RENV *Stichting Greenpeage Nederland and PAN Europe v Commission*, ECLI:EU:T:2018:817, para 100; Case T-437/08 *CDC Hydrogene Peroxide*, ECLI:EU:T:2011:752, para 44; T-516/11, *MasterCard and Others* v *Commission*, EU:T:2014:759, para 81. *See* also, T-189/14, *Deza v ECHA*, ECLI:EU:T:2017:4, para 56.

[112] *See*, e.g. CJEU, T-189/14, *Deza v ECHA*, ECLI:EU:T:2017:4, para 56; T-545/11 RENV *Stichting Greenpeage Nederland and PAN Europe v Commission*, ECLI:EU:T:2018:817, para 101; T-516/11, *MasterCard and Others* v *Commission*, EU:T:2014:759, paras 82 to 84 referring to Case C-477/10 *Commission v Agrofert Holding*, ECLI:EU:C:2012:394, para 56.

6. Regulatory oversight of RECs and CECs

Under Article 59(1)(z) of the IEMD, Member States' NRAs have a duty to monitor the removal of unjustified obstacles to and restrictions on the development of CECs. This means that NRAs will need to take an active role in learning about CECs. This requirement is broad and Member States have discretion as to what they empower NRAs to monitor. There are a number of issues that it would be useful for NRAs and other relevant regulatory authorities to monitor with relation to RECs and CECs, including:

- excessive or otherwise discriminatory connection, licensing, registration procedures and fees;
- complaints from RECs and CECs, or their members, that their rights have been violated;
- measures that take into account the specificities of RECs and their impact on competition in tendering procedures for renewables support, as well as the ability of RECs to participate in the market;
- unreasonable obstacles in accessing financing and financial instruments including bank loans;
- statistics regarding the growth of RECs and CECs over time, as well as data regarding their activities, and different local benefits (e.g. social, economic and environmental) they deliver;
- compliance with criteria for being considered a REC or CEC, as well as any potential abuse, both through illegal and legal means;
- the impact of RECs and CECs on competition, including consumer choice;
- arrangements between DSOs and energy communities, including services provided by DSOs to facilitate activities of energy communities, such as energy sharing, under Article 16(1)(d) of the IEMD and Article 22(2)(b) of the REDII;
- costs and benefits of different REC and CEC activities that impact the energy system, in particular on charges, fees and tariffs;
- cost-benefit analyses that must be developed under Article 16(1)(e) of the IEMD and Article 22(4)(d) of the REDII;
- any other matters that fail to take into account the individual characteristics of RECs and CECs.

While Article 59(1)(z) does not mention RECs, it would not make sense for regulators to monitor CECs without also monitoring RECs. Therefore, **we recommend that national legislation authorise NRAs to monitor both RECs and CECs**. Furthermore, whether or not transposition legislation provides such specificity, **we recommend that NRAs develop or**

request resources in order to be able to monitor removal of unjustified obstacles and restrictions to the development of RECs and CECs, as well as other information.

In order to effectively carry out monitoring duties, **we recommend that Member States legislate or implement government registration and management systems for RECs and CECs to track their development, as well as impediments to accessing the market, over time**. To this end, Member States should.

- establish a framework for registering RECs and CECs with relevant bodies. Because they will be legal entities, they need to register with the relevant companies' authority or relevant oversight body. Such requirements should remain simple and easy for energy communities to meet; and

- in legislation, clearly articulate relevant responsibilities for NRAs including registration and coordination with different relevant authorities that need to oversee RECs and CECs.

So far, several Member States have provided for some sort of oversight of CECs and/or RECs. However, none of the examples so far have included a specific focus on removal of obstacles or restrictions to the development of RECs or CECs.

Example 59: Different forms of regulatory oversight of energy communities

Under new legislation in Lithuania intended to transpose the REDII, the State Energy Regulatory Council shall inspect, supervise and control the compliance of renewable energy communities with meeting procedural requirements relating to the establishment of the REC and its statutes, which must specify:

- how decisions on the sale of produced energy are made;
- the administration and maintenance of energy production facilities; and
- how income received from energy production activities is distributed.

If the Renewable Energy Community violates these rules, the REC's license to produce electricity may be revoked in accordance with the procedure established in Article 17 of the Law on Electricity.

According to proposals from the Regulator in Flanders Belgium (VREG) to the ministry on transposition, all energy communities must report their contact details and information regarding activities, as well as any changes in these activities, to an authority to be determined by the Flemish Government. The proposal also recommends that the Flemish Government establish the further modalities of the notification obligation and the manner of publication of the data provided in the context of this notification obligation.

According to proposals from the Regulator in Sweden to the ministry on transposition supervision of compliance with new legislative requirements for RECs and CECs should be exercised by the regulator. The regulator would be entitled, upon request, to obtain the information and to take part in the documents needed for the supervision. A request may be combined with a fine.

Under a draft law on energy communities in Luxembourg, the constitution and the dissolution of a renewable energy community as well as any changes in community composition would need to be reported to the regulator and the system operator and the suppliers concerned at the latest

at the event. The REC would, at least annually, need to list the power plants of its members or shareholders as well as the energy balance to the regulator and the relevant network operator.

In Italy, Since the new legislation on RECs is experimental, the national regulator, ARERA, is empowered to develop a system for continuous monitoring of the configurations that have been established under the law to allow energy sharing by RECs. This system includes provision for the evolution of the cost of the energy component with regard to payment of charges and of the various tariff components, taking into account the possible growth trajectories of the self-consumption configurations, and the evolution of the overall needs of the various components.