



# Energy communities in the EU

Opportunities and barriers to financing

Jasmine Arnould and Diana Quiroz

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## About this report

This report has been commissioned by Friends of the Earth Europe, to provide an overview of the main financing opportunities and barriers to energy communities in the EU.

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## Authorship

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## Summary

Energy communities have different financing processes and needs from traditional initiatives – these movements are diverse, yet are often characterised by their small-scale, volunteer-run and mission-driven nature. Energy communities are also crucially bound by ownership and governance structures which formalise collective, democratic decision-making. All of this impacts the potential of financing today, both in private and public spaces. This report aims to shed light on the current landscape of financing options for ECs, and the barriers and opportunities inherent to these available models.

In Chapter 1, we briefly review what is meant by an ‘energy community’ both in the larger movement and literature, and specifically in this report. In Chapter 2, we outline the main provisions in EU legislation today which account for the regulatory support of energy communities, including on financing tools.

Chapter 3 focuses on private financing mechanisms. We found that accessing private finance remains a difficult feat for ECs. This is mostly due to nature of ECs, which do not present the typical business case that financial institutions are interested in investing in: ECs are small, risky, maintain democratic governance and ownership models and generally raise the bulk of their financing after the financial close of their project.<sup>1</sup>

Chapter 4 outlines the key public funding mechanisms – from Cohesion Policy to the Modernisation Fund - which are currently being focused on by energy community advocates for their potential. There has never been more strategic motive for the EU to invest in energy communities, and this is evident in the way some of the funds are being creatively. Some hopeful examples are emerging in Italy, the Netherlands and Ireland, among others. And yet, relevant public funds are largely inaccessible to those without national infrastructure in place, or expertise in tapping public finance, and this access is further hindered by inadequate national and regional policies.

Indeed, a key finding throughout the report, and which has been repeated throughout the community energy movement, is that all types of financing mechanisms are hindered by the incomplete adoption of the Renewable Energy Directive (RED) and Internal Electricity Markets Directive (IEMD), both of which explicitly provide for an enabling framework tailored to energy communities. The lack of transposition means that the much-needed coordination between different financial support instruments that could be used to promote relevant ECs is not being established.<sup>2</sup>

Additionally, in both public and private types of financing mechanisms, very few of the tools available today are specifically for the development of ECs. Most schemes are not tailored to the specific and sometimes diverse needs of EC movements, which are generally characterised by low technical and organisational capacity, lack of start-up capital, risk-aversiveness and a need for democratic and participatory governance. As a result, the available finance does not reach energy communities throughout a country, let alone throughout the EU in a widespread and impactful way.

Finally, financing schemes cannot alone provide the support needed for an EC movement to thrive. A level playing field, access to information, tailor-made solutions, opportunities to collaborate, the inclusion of efficiency and poverty dimensions – these are all parts of a supportive system that would allow energy communities to develop and thrive. This is where enabling frameworks under the RED and IEMD are crucial components to driving an overall system that is beneficial for EC development and based on the specific socio-cultural and political contexts in each Member State.

## Abbreviations

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<b>CEC</b>	Citizen energy community, defined in the revised Electricity Directive (2019/944/EU) in the European Commission's 'Clean Energy for all Europeans' package.
<b>CEP</b>	The Clean Energy for all Europeans Package
<b>EC</b>	Energy community
<b>IEMD</b>	The revised Electricity Directive (2019/944/EU) of the European Union
<b>REC</b>	Renewable energy community, defined in the revised Renewable Energy Directive (2018/2001/EU) of the European Union.
<b>RED</b>	The Renewable Energy Directive of the European Union
<b>RES</b>	Renewable Energy Sources
<b>SIE</b>	Social innovations in energy

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## Introduction

There has never been a better time to provide an alternative to the current energy system. The climate emergency is being debated in the EU Parliament given this summer's devastating droughts and forest fires across the continent.<sup>3</sup> The Russia-Ukraine war has led to a situation which sees widespread energy poverty among low and middle income European citizens becoming a reality.<sup>4</sup> Given the accelerating energy price crisis and the looming winter, previously unimaginable measures are being discussed in Brussels like a REPowerEU fast-track plan to transition from fossil fuels to renewables<sup>5</sup> and a windfall tax on oil and gas corporations.<sup>6</sup> All this explicitly recognises the need to transition away from fossil fuels, in a just and inclusive way.

Since the 2019 adoption of the Clean Energy for All (CEP) package, this framework includes citizens willing and able to participate in the production, storage, and distribution of energy. For the first time EU legislation recognised the role of community energy ownership and set requirements for Member States to support the proliferation of energy communities (ECs).

Despite promising developments in policy at the EU level, the implementation of these policies has been uneven, and sometimes misguided. The lack of clear guidelines for transposition in a socially innovative space that is relatively new, and competing with a traditionally large, sometimes state-owned corporate sector, has often meant slow progress at the national, regional and local levels of policy-making and implementation.

Adding to the complexity is the fact that ECs are extremely diverse – in size, assets, technology, service offering, organisational capacity, policy environment, to name just a few of the dimensions at play on the ground. ECs run the gamut between a group of farmers investing in biomass to power their trucks, all the way to a cooperative supplying energy to 65,000 citizens in multiple countries. They are also inspired and impacted by the national, regional, and local political and cultural contexts in which they are shaped, creating shades of diversity throughout the EU.

Although it is a heterogeneous group, aspiring and established ECs alike still struggle with accessing finance to start-up or scale up. The financial barriers for ECs are particular, however, and rest on their nature:

- For the most part small, local and run by volunteers;
- Lack starting capital and technical/organisational capacity outside of the community; and
- Are structured and governed in ways that formalise collective decision-making.

What is the state of play of financing ECs in the EU? Where are there successful examples of such schemes and why are these working? Given the very current development and implementation of the policy frameworks for ECs, these are difficult questions to answer. Yet a closer look at the EU-level policy environment and existing schemes may give us some indication of common factors contributing to targeted models for financing ECs.

This report aims to shed light on the current landscape of financing options for ECs, including specific provisions in EU legislation which requires that ECs are provided the support necessary to develop as viable sources of energy for local communities and communities at large.

# 1

## Overview of energy communities

**Much has been deliberated about what constitutes an energy community, especially in the wake of legal definitions imposed by EU regulations on renewable energy and electricity markets,<sup>7</sup> and the need for Member States to transpose these definitions into national law. This section provides a brief summary of this discussion and clarifies the use of the term ‘energy community’ in this report.**

### 1.1 What is an energy community?

#### 1.1.1 General meaning

The term ‘energy community’ has been used to loosely mean a formalised group of people creating and governing an alternative energy system which aims to bring social, environmental and economic benefits to their community, such as reduced energy costs, local jobs, or increased acceptance of renewable technology. This group has included a diverse cohort of actors – small and medium-sized enterprises, local authorities, communities and cooperatives, but also households and individuals – who are engaged in the act of producing and consuming their own energy, often with the explicit task of providing wider, social benefits.

#### 1.1.2 Legal definitions

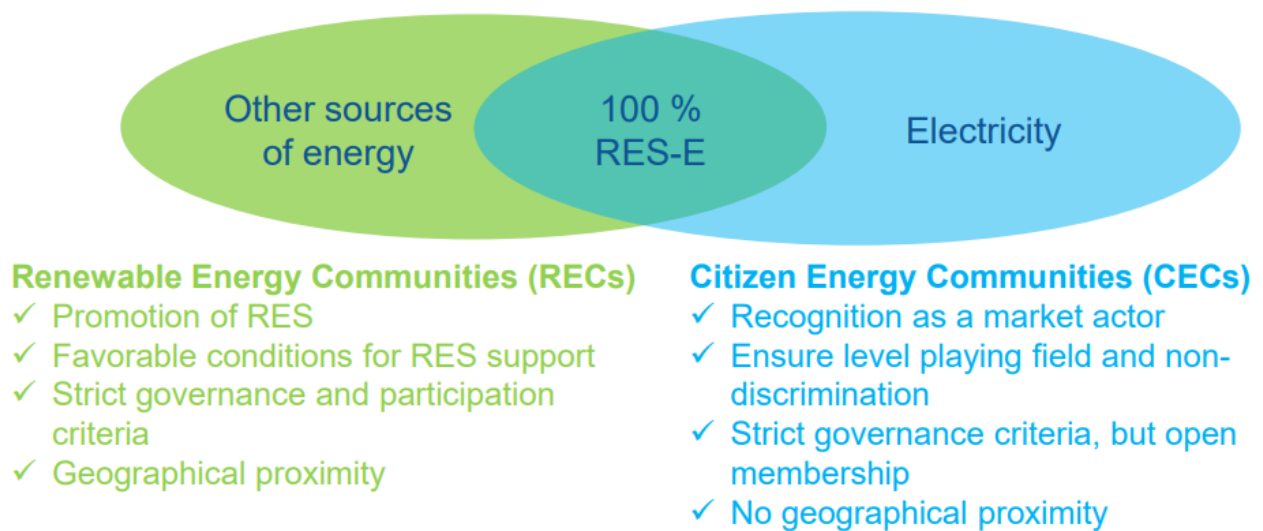
Since 2019, certain types of energy communities have had bases established in the EU legislations of the Renewable Energy Directive (REDII) and in the Internal Electricity Markets Directive (IEMD). Renewable Energy Communities (RECs) were defined in the REDII, whereas Citizen Energy Communities were established in the IEMD.

There are some notable differences in these definitions. In some senses, CECs can be more broadly interpreted - CECs have no geographical or technological restrictions whereas members of an REC must have geographical proximity to the source of renewable energy produced. Despite these differences, the definitions do have some overlap (Figure 1) and 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.<sup>8</sup>

Moreover, the REDII and IEMD directives must still be transposed into national law, where the definitions can be further refined and differentiated. For example, the EU has left a relatively large degree of freedom for Member States to determine the organisational forms that RECs/CECs must follow (within the limits of the definitions provided in the legislation).<sup>9</sup>



**Figure 1      Overlap between RECs and CECs**



Source: European Commission (2021) “Clean Energy Package – Legal Framework for Renewables Self-Consumption” (Powerpoint presentation), *Workshop on renewables self-consumption*, p.10.

In most countries in the EU, the definitions have not been adequately transposed as of yet, or have not been considered in national law at all, despite the transposition deadline of June 2021. The exceptions are Belgium (except the region of Wallonia), France, Denmark, Ireland, Italy and Sweden.<sup>10</sup>

## **1.2      Use of the term ‘energy communities’ (ECs) in this report**

Although the legal definitions in the RED and IEMD have attracted much attention in the literature of the past four years,<sup>11</sup> community ownership of energy generation and distribution long preceded these developments. The term ‘energy communities’ (ECs) will be used throughout this report to refer to the broader sense of an energy community, borrowing the NEWCOMERS project definition of energy communities as *“an association of actors engaged in energy system transformation for reduced environmental impact, through collective, participatory, and engaging processes and seeking collective outcomes.”*<sup>12</sup> The terms CEC/REC will be used to refer to the stricter legal senses when discussing points in the relevant legislations of the CEP.

Using a broader definition does not negate the importance of the legal definitions and their clear transposition into national laws. Rather, the decision to use the broader term is practical, above all to make use of different sources of research some of which apply a more inclusive concept around ECs. There is also the fact that the legal definition of CEC/RECs is still ambiguous and applied differently in different Member States, already creating some difficulty in an analysis of a heterogenous movement.

# 2

## Policy environment

**The last four years has seen unprecedented legal recognition of energy communities as legitimate and even crucial mechanisms to support climate ambitions in the EU. This means that today, energy communities – both developing and established – find themselves in a policy environment which should be designed to support them, including financially. This section provides an overview of the provisions in the relevant legislations which provide basis for financing energy communities.**

### 2.1 Overview of the Clean Energy for All package (CEP)

Until very recently, citizens who wanted to be involved in energy production found little to assist them in EU legislation. They had to rely largely on local and national policies, as well as the perseverance of citizens willing to invest in a change.<sup>13</sup> This all changed when in 2019, the EU adopted a series of energy policies dubbed the Clean Energy for All package (CEP) with the aim of moving the EU away from a fossil fuel-reliant infrastructure towards a system able to meet the Paris Agreement commitments. For the first time, EU legislation recognised the role of community energy ownership in meeting these goals.

Of the eight new laws included in the 2019 CEP, two directives in particular contain provisions to establish a supportive EU legal framework for community ownership of energy:

- The Renewable Energy Directive (RED)
- The Internal Electricity Market Directive (IEMD)

The impact of these directories will be examined in the following sub-sections.

#### 2.1.1 Renewable Energy Directive (RED)

Across the EU, the share of renewable energy in gross final energy consumption more than doubled from 9.6% in 2004 to 22.1% in 2020.<sup>14</sup> Contributing to this relatively early shift in the energy system was the Renewable Energy Directive (RED). First adopted in 2009, it established common principles and rules to remove barriers, stimulate investments and drive cost reductions in renewable energy technologies.

The directive was revised in 2018, which crucially set a binding renewable energy target of 32% for the EU's energy consumption by 2030. Another revision was proposed by the European Commission in 2021 to better align RED with the EU's increased climate ambitions.<sup>15</sup> The proposed revision to the directive would increase the common target of 32% to 40%, making it more realistic for the EU to achieve carbon neutrality by 2050. With renewed concerns over energy security, the target may yet increase again following the ambitions of the 2022 REPower EU plan. The proposed revision of the directive is expected to be adopted by the end of 2022.<sup>16</sup>

In the meantime, the provisions of the recast 2018 RED (hereon, simply RED) provide strong recognition and support for the concept of community ownership of renewable energy throughout the EU through its defined concept of renewable energy communities (see Section 1.1.2). With regards to supporting the particular financing needs of developing and established renewable energy communities (RECs), RED provides two key provisions:

- First, there is a requirement for Member States to develop an enabling framework to promote and facilitate the development of RECs which ensure, among many other things, that: “[...] *tools to facilitate access to finance and information are available.*”<sup>17</sup> The aim of this requirement is to de-risk investments by members of the community in renewables projects.<sup>18</sup> Moreover, many groups do not know where to start when it comes to technical and financial aspects of setting up an EC, so access to the initial capital to fund pre-development (e.g. feasibility studies, permits, legal agreements, etc.) is crucial.
- Second, there is a requirement for Member States to take into account specificities of renewable energy communities when designing support schemes in order to allow them to compete for support on an equal footing with other market participants.<sup>19</sup> One of the foundational supportive elements for RECs in the RED is guaranteeing a level playing field for RECs in national renewables support schemes. This provision does not amount to a requirement for Member States to adopt a renewables support scheme, but it does require existing schemes to be tailored so that RECs can access them on a level playing field with other larger market actors.<sup>20</sup>

Member States have considerable discretion over exactly how they make good on these requirements, with the deadline to transpose the recast RED directive on 30 June 2021.

### 2.1.2 Internal Electricity Market Directive (IEMD)

The European Commission recognises that the market must provide the right incentives for consumers to become more active and to contribute to keeping the electricity system stable. The Internal Electricity Market Directive<sup>21</sup> (IEMD) aims to facilitate this market transition for what it calls ‘citizen energy communities’ (CECs). In brief, these are defined as legal entities based on voluntary and open participation, with the primary purpose to provide environmental, economic, or social community benefits through the provision of energy services.

The IEMD provides requirements for Member States to develop enabling frameworks to support CEC development and remove obstacles and restrictions resulting in an unfair playing field. There are no specific provisions for supporting CECs through finance, though the IEMD has been a boon to outlining the rights and obligations of CECs in the EU.<sup>22</sup>

### 2.1.3 Renewable Energy Financing Mechanism (REFM)

The Governance Regulation’s provision on the EU Renewable Financing Mechanism is also a key piece of legislation providing overt provisions for the financing of renewable energy developments. To better support renewable energy projects, and thereby encourage a greater uptake of renewable energy sources across the EU, the European Commission established this REFM, in force since September 2020.

The REFM is currently being implemented, so no project list has yet been published<sup>23</sup> to examine what types of renewable energy developments are being created and/or supported by the mechanism to start with.

## 2.2 National implementation of RED enabling frameworks

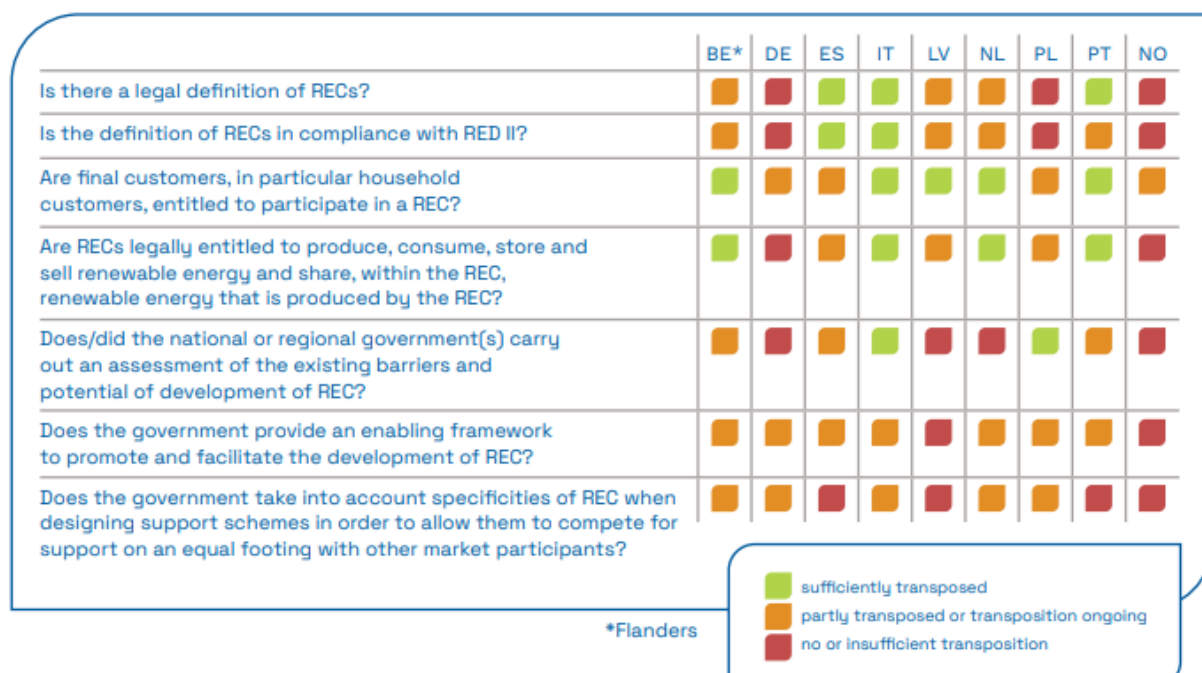
The RED requires Member States to put in place enabling frameworks that support citizens and communities investing in renewables. These frameworks need to be based on national assessments, which in turn give citizens an opportunity to engage with their decision makers on local opportunities and barriers. The development of these national enabling frameworks is connected with the national planning process that EU Member States have to go through in order to communicate to the EU how they will contribute to targets related to renewables, energy efficiency and greenhouse gas.<sup>24</sup>

The deadline to transpose the elements of the revised RED directive was 30 June 2021, though by this time most Member States were delayed in putting together an enabling framework deemed to be sufficiently covering the requirements as stated in the directive.

Though many countries have now transposed definitions of CEC/RECs, only Belgium (except the region of Wallonia), France, Denmark, Ireland, Italy and Sweden are found to have done so in a way that is useful for the progression of the EC movement.<sup>25</sup> A similar lack of robustness is being found in the implementation of enabling frameworks as provided for in the directives. Austria, Ireland, Belgium, Italy, Lithuania, Poland, Luxemburg, Slovenia, France, Finland and Portugal had adopted frameworks to different degrees of detail, while, Denmark, the Netherlands and Hungary had draft frameworks in place and Sweden a consultation document.<sup>26</sup>

Greece is unusual in that they have had legislation supporting EC development since 2018, effectively predating the RED and IEMD. Despite the legislation providing key elements of support to RECs,<sup>27</sup> it does not fully transpose the requirements of more recent EU legislation in the RED and IEMD and a draft transposition document has not yet been published.<sup>28</sup> Moreover, in 2021, key stakeholders and advocates called on the Greek government to overturn elements of the legislation which are being co-opted to the disadvantage of current ECs.<sup>29</sup>

**Figure 2 Transposition of RED elements in 9 EU/EEA Member States**



Note: BE Belgium (Flanders); DE Germany; ES Spain; IT Italy; LV Latvia; NL the Netherlands; PL Poland; PT Portugal; NO Norway.

Source: Hinsch, A., Rothballer, C., and J. Kittel (2021, April) "Renewable Energy Communities – Are we nearly there?" Policy Brief #01, COME RES.

To date, there is no resource tracking the progress of the development and implementation of the RED enabling frameworks in all 27 Member States, though REScoop.eu is in the process of publishing such a tool to complement their Transposition Tracker.<sup>30</sup> One assessment from April 2021 shows considerable variation but overall not a lot of progress in EU Member States only one month before the transposition deadline (Figure 2). At this point Italy and Belgium (Flanders) were the only countries/regions to have either fully or partly addressed the transposition requirements.

There are various reasons stated for the delays in drawing up the RED enabling framework for RECs. Above all is the undisputed fact that establishing such enabling frameworks is complex and has to balance the interests of many different energy market actors, regulators and political views.<sup>31</sup> Others however speculate that slow progress is due to the fact that the benefits of RECs and ECs more generally are still not well understood among public authorities, and that in many countries there is not yet an established citizen movement related to RECs. ECs are also entering a competitive space with established energy market actors, often large, and sometimes state-owned. Related to this, there is a lack of political willingness to conduct assessments necessary in order to create a well-informed and useful framework to remove obstacles and drive progress in the development of RECs.

# 3

## Private financing

**Across the European Union, the bulk of energy communities financing comes from the individual investments of their members. Although there are many privately financed RES projects, ECs are still struggling to access finance to start or scale up their projects. In this section we present an overview of private financing for ECs and analyse their barriers and opportunities.**

### 3.1 Overview of private financing opportunities

Across the EU, most of the financing for ECs is channelled through the private investments of their members.<sup>32</sup> To raise the capital needed to finance their projects ECs rely mostly on two options. The first one is to approach individuals or financial institutions for direct investment in return for a number of shares in the business. The second is to acquire debt by borrowing capital. The first option – equity - can affect the autonomy of ECs, while acquiring debt can put their assets at risk, shall they fail to repay the debt.

Table 1 provides an overview of the different private finance instruments available to ECs. Contrary to funding raised in capital markets, the source of finance for ECs is not determined by the volume of the capital they require, but by their ownership structure, whether finance will be used to finance a project or an entire organisation, and the policy and public finance support available in the country where the REC is based.<sup>33</sup> As much as possible, the overview of private finance presented here provide considerations for energy communities that are relevant under certain conditions.



**Table 1 Overview of private finance instruments for energy communities**

Private finance instrument	Actors on the supply side of private finance	Description	Considerations for energy communities
<b>Equity finance</b>			
<i>Equity financing involves the sale of a stake (ownership interest) to raise capital for business purposes.</i>			
<b>Share offer and Self-financing (Equity capital)</b>	Individual coop members, community members	In the context of ECs, share offer is literally offering a share of the EC's capital to its members. To become a member of the EC, thus, is necessary to own a share of the cooperative. Thus, owning a share of the EC provides governance rights to its members. Self-financing occurs when capital is raised by coop members, rather than private investors. The return on this type of investment is share interest, typically paid out at the end of the financial year and depends on the members' decision of how profits are to be distributed. <sup>34</sup>	In the context of REC (and other community) projects, shares can spread the cost and risk of acquisition across a large number of shareholders. Where commercial businesses fail through a lack of demand; RECs can address this by aggregating demand and ensuring that the business serves the community. A business might be unable to control costs resulting in unaffordable prices; a community can reduce costs by volunteering, or by providing cheaper capital. <sup>35</sup> In an EC, members who invest equity in the RES project are given a single vote, regardless of the size of their investment. This has a positive impact on the governance of the EC, for it allows for transparent governance.
<b>Closed-end private equity mutual funds with silent partners</b>	Individual investors	Like mutual funds, private equity funds are pooled investment vehicles where an adviser uses the money pooled to make investments on behalf of the fund. <sup>36</sup> A closed-end fund is a fund that has a fixed number of shares that are offered during an initial subscription period. Once the subscription period ends, the shares are traded between investors. <sup>37</sup> Private equity funds typically take a controlling interest in an operating business and engage actively in the management of the business, with the idea in mind to increase its value.	ECs could maintain their autonomy when using this financing instrument by enlisting investors as silent partners (i.e., an investor that becomes a member of the EC by contributing capital but plays an inactive role in decision-making). Closed-end private equity mutual fund with silent partners has been used by German coop OekoGeno under its OekoGeno GmbH project, which issues funds dedicated to the financing of RES projects. While this instrument has proven a best practice, it might be challenging in contexts where investor protection discourages private equity mutual funds as a financial model for public participation. <sup>38</sup>
<b>Debt finance</b>			
<i>Debt financing is fixed by a contract for a specified period and is often secured by collateral. Collateral is something pledged as a security for repayment of the loan (and may be seized from the borrower if they fail to repay the loan). Collateral may include guarantors, assets, or savings.</i>			

Private finance instrument	Actors on the supply side of private finance	Description	Considerations for energy communities
<b>Leasing</b>	Commercial banks, non-bank financial institutions	Leasing is a contractual agreement by which a firm or an individual can use a certain fixed asset for which it must pay a series of periodic, tax-deductible payments. At the end of the contract term, the user may gain ownership of the good by paying fixed quota that is settled before the contract is signed.	Leasing of large renewable plants requires a variety of actors (e.g., sponsors, banks or a leasing company, developers, operating managers, and the consumers of the energy). This kind of operation is complex and leasing companies only finance solid business plans (i.e., projects with high levels of expected productivity in a context of promising public incentives and energy prices), up to 90% of the total investment. Leasing contracts are also used for small operations (e.g., private PV installations). Here, the user pays a large fee at the signature, a periodical fee, and the end of the agreed period can decide to buy the PV panels paying the balance to the leasing company. Financial solutions are designed to meet the needs of clients, who receive full access to selected suppliers, personalised financial planning, and support with insurance coverage.
<b>Bank loans</b>	Commercial banks	Bank loans are a form of borrowing from a bank. The amount borrowed is paid back over a fixed period and a fixed or variable interest rate. There are different types of loans including current accounts, business loans, business mortgages, and start-up loans (i.e., a package of financial services tailored to the needs of starting ventures). <sup>39</sup>	Bank loans are relatively expensive and involve high demands in relation to own equity, current ratios, etc.
<b>Ethical loans</b>	Ethical banks, development banks, municipal banks, regional funds	Ethical loans are loans issued by banks whose mission is to support cultural, social, and ecological projects rather than maximising profit. An ethical bank does not invest in financial markets, and issues loans exclusively to economically viable projects of the social economy: organic agriculture, social or cultural projects, energy saving, renewable energy production, etc.	Ethical loans, like other type of sustainability loans (i.e., green loans, sustainability-linked loans, and social loans) may not necessarily be arranged by ethical banks, but also by regular commercial banks. The rate for this kind of loans might be lower than regular bank loans.

Private finance instrument	Actors on the supply side of private finance	Description	Considerations for energy communities
<b>Green loans</b>	Commercial banks, ethical banks, development banks	Green loans are any type of loan instrument made available exclusively to finance or re-finance, in whole or in part, new and/or existing eligible Green Projects (including in RES). Green loans and green bonds are similar in both raise capital for green eligible projects. However, a green loan is based on a loan that is typically smaller than a bond and done in a private operation. A green bond usually has a bigger volume, may have higher transaction costs, and could be listed on an exchange or privately placed. <sup>40</sup>	Green loans might be of particular interest for ECs, as capital may be cheaper under these instruments (i.e., lower rates) provided Environmental, Social, and Governance (ESG) Key Performance Indicators (KPIs) are achieved. The rate for this kind of loans is usually fixed.
<b>Sustainability-linked loans</b>	Commercial banks, ethical banks, development banks	Sustainability linked loans are any types of loan instruments and/or contingent facilities (such as bonding lines, guarantee lines or letters of credit) which incentivise the borrower's achievement of ambitious, predetermined sustainability performance objectives. The borrower's sustainability performance is measured using sustainability performance targets (SPTs), which include KPIs, external ratings and/or equivalent metrics and which measure improvements in the borrower's sustainability profile. <sup>41</sup>	Sustainability-linked loans might be of particular interest for ECs, as capital may be cheaper under these instruments (i.e., margin adjustment mechanisms) provided ESG KPIs are achieved. For this kind of loans, there may be a margin adjustment mechanism in place. Depending how the borrower meets sustainability KPIs, the rate may fluctuate – decreasing if all KPIs are met or increasing if one or more KPIs are not fulfilled.
<b>Social loans</b>	Commercial banks, ethical banks, development banks	Social loans are any type of loan instrument made available exclusively to finance or re-finance, in whole or in part, new and/or existing eligible Social Projects (e.g., projects that target people living below the poverty line, excluded and/or marginalised populations and/or communities, people with disabilities, migrants and/or displaced persons, undereducated, underserved, owing to a lack of quality access to essential goods and services, unemployed, women and/or sexual and gender minorities, aging populations and/or vulnerable youths, and other vulnerable groups, including as a result of natural disasters). <sup>42</sup>	This type of loans can be channelled to finance REC projects that target energy poverty. For this kind of loans, there may be a margin adjustment mechanism in place. Depending on how the borrower meets sustainability KPIs, the rate may fluctuate – decreasing if all KPIs are met or increasing if one or more KPIs are not fulfilled.

Private finance instrument	Actors on the supply side of private finance	Description	Considerations for energy communities
<b>Soft loans</b>	Development banks, governments, coops	Soft loans are loans provided at a no-interest or below-market interest rate, or with favourable financing conditions for the borrower often including coaching and technical support.	
<b>Green bonds</b>	Institutional investors (e.g., pension funds, insurers), banks, investment funds	Green bonds are a fixed-income instruments used to finance projects that deliver environmental benefits. <sup>43</sup> They are an instrument of debt from the bond issuer to the bond holder, where the former is usually obliged to pay interest and pay back the principal at the bond maturity date. The bond issuer can use the funds to finance longer term investments. <sup>44</sup>	Bonds are hardly accessible for individual ECs (as they are too small in scale and represent a high risk for investors). Rather, banks may issue their own bonds based on a portfolio of many small loans granted to individual ECs. Nonetheless, for ECs seeking to seize the financing opportunities of green bonds, the Energy Community Secretariat launched a webinar series in 2022 to raise awareness of green bonds and mobilise this type of finance in the Western Balkans. The focus was on the tools needed to attract potential investors and the presentations used in the webinars are available on the ECS webpage. <sup>45</sup>
<b>Mezzanine instruments</b>			
<i>Mezzanine financing is a hybrid of debt and equity financing. It is typically provided as debt capital that can be converted into equity if the loan is not repaid.<sup>46</sup></i>			
<b>Mezzanine financing</b>	Specialty finance companies, venture organisations, banks, state-sponsored financial institutions	Mezzanine financing is a collective name for various forms of hybrid financing. Its most common form is subordinated loans (i.e., any type of loan that is repayable only after other debts have been paid, which makes them risky investments with high interest rates). Other types of mezzanine financing include participating loans (i.e., normal loans that generate profits based on the results of the business, rather than there being a fixed return) and higher-risk instruments such as profit participation right and convertible bonds. <sup>47</sup>	Mezzanine financing is often used by Fincoops (Financial Cooperatives). Fincoops are often set up to collect private investments to then be lent as subordinated loans to companies looking to develop projects. Because of the debt nature of the financing, the cooperative gets no ownership of the project, while at the same time providing low interest financing to the developer. REScoop.eu recommends energy communities and energy cooperatives to be especially careful to avoid this instrument as it withdraws ownership of the RES project.
<b>Alternative investment funds</b>			
<i>An alternative investment fund (AIF) is an investment vehicle where an investment company offers investors opportunities to take part in a collective investment fund. AIFs are regulated at EU level by the Alternative Investment Fund Managers (AIFM) Directive.<sup>48</sup></i>			

Private finance instrument	Actors on the supply side of private finance	Description	Considerations for energy communities
<b>Peer-to-peer investment platforms</b>	Businesses, individuals	Peer-to-peer investment (P2PI) or peer-to-peer lending (P2PL) is the practice of funding loans for businesses or individuals without traditional financial intermediaries and who are known to the investor. P2PI is widely accessible through peer-to-peer investment platforms, which offer prospective investors a wide range of investment opportunities. Borrowers accept a loan at the lowest interest rate. <sup>49</sup>	In this case, peers are individuals who lend to other individuals grouped in an EC.
<b>Crowdfunding</b>	Individuals	Crowdfunding is a way to raise money to finance projects and businesses. It enables fundraisers to collect money from a large number of people via online platforms. Mostly start-up companies use crowdfunding. There are different types of crowdfunding, including equity crowdfunding, rewards-based crowdfunding, donation-based crowdfunding, profit sharing, and hybrid models. <sup>50</sup> While often grouped together, crowdfunding differs from P2PI in which crowdfunding is higher risk (and higher return) and therefore tends to attract savvy investors (i.e., those with high level of financial knowledge). <sup>51</sup>	The same crowdfunding legislation does not apply to every country in the EU. Before engaging in detailed preparatory work, ECs should acquaint themselves with the rules that apply in their country. Crowdfunding legislation sets the amount that can be raised, type of investor participation, prospectus requirements, etc. <sup>52</sup> Crowdfunding is more suitable for financing solar PV and wind power projects because of their technology maturity, modularity, high reliability, simplicity of the power generation process and availability of technical services for these RES. <sup>53</sup>
<b>Other forms of financing</b>			
<b>Green trade finance</b>	Guarantee societies, commercial banks, ethical banks, coops	Green trade finance includes trade finance instruments such as Green Guarantees, Letters of Credit and Stand-by Letters of Credit. These trade finance instruments support, guarantee and/or finance an underlying project that makes a clear positive contribution to the environment. Green trade finance focuses on five main sectors: Renewable Energy, Clean Transportation, Waste Management, Sustainable Water and Wastewater Management and Hydrogen. <sup>54</sup>	Sometimes a cooperative will guarantee the loan of another one. For example, Ecopower and Enercoop where an indirect guarantee from Ecopower, allowed Enercoop to participate in a public tender for Hydropower plants in France in 2008.

Source, unless otherwise indicated: REScoop.eu (2021), *COMPILE. Financing Guide*.

### 3.2 Barriers of private financing mechanisms

Despite the plethora of private finance instruments, ECs still seem to find it difficult to secure financing from private financiers, especially those ECs in need for early-stage support.<sup>55</sup> This raises the question about what barriers impede the materialisation of privately financed REC projects. Understanding why private finance has not been sufficiently mobilised to cater for the financing needs of ECs is crucial to informing the design and implementation of policies that support the proliferation of ECs.

### Table 2 Assessment of suitability of private finance instruments for ECs

Type of instrument	Criteria			
	Risk for energy communities	Accessibility	Scalability	Impact on governance
Share offer	High	Medium	High	Medium
Self-financing	High	Medium	High	Low
Closed-end private equity mutual funds (with silent partners)	High	Medium	High	Low
Leasing	High	High	Medium	Low
Loans (bank loans, ethical loans, soft loans, sustainability-linked loans, and social loans)	High	High	Medium	Low
Green bonds	Medium	Low	Medium	Low
Mezzanine financing	Low	Low	High	Low
P2PI	Low	Low	Low	High
Crowdfunding	Medium	Low	High	Medium
Green trade finance	Low	Medium	High	Low

		Low	High	Low
Risk		Low	Middle	High
Accessibility		Easy	Moderate	Difficult
Scalability		Scalable	Replicable	Tailor-made
Impact on governance		Does not compromise governance	Somewhat compromises governance	Compromises governance

Source: Profundo, elaborated from the published sources used in 0 and interviews with key informants. These assessment criteria draw on the issues that emerged from the key informant interviews about the suitability of private finance instruments for ECs. **Risk:** How much risk the financing instrument carries. **Accessibility:** Easiness of EC access to the financing mechanism. **Scalability:** Easiness of organisation of the process. **Impact on governance:** Whether the financing instrument implies involvement of external entities in decision-making or implies control of the EC's activities to access resources, thereby compromising the principle of democratic governance and ownership. The assessment is made from the perspective of Energy Communities.



Looking at the diversity of private finance available to ECs, it becomes clear that not all of them might be suitable or desirable for its members (Table 2). Of course, the risks and potentials of private finance for RECs vary according to different aspects, including the type of instrument,<sup>i</sup> ownership structure of ECs, and the legislative context in which they operate. However, incomplete information about their risks and potentials is one of the key reasons for risk aversion of financing RECs.<sup>56</sup> At the same time, knowledge of their trade-offs has been generally identified as a disincentive for actors on the demand side of private finance.<sup>57</sup>

All equity instruments potentially have a strong impact on governance. This impact can certainly be negative when profit-driven interests like private equity funds are brought in. Letting the private equity fund be a silent partner would mitigate this (as shown in the case of OekoGeno in Germany) but compromise the availability of this type of financing as by far the most private equity funds would not step in then. All types of bank loans (also the ethical and soft loans) also have potential governance impacts, as banks include covenants in loan contract which can force the EC to financial decisions which go against the interests of its members.

Debt finance, in its different forms, still proves difficult to access for new coops because the costs of bank transactions are often high compared to the service provided.<sup>58</sup> Moreover, social enterprises and coops remain the most affected by financing constraints because banks have been taking more cautious approaches to risk in line with their efforts to rebuild their balance sheets.<sup>59</sup> Green bonds, for example, face certification and investor trust issues.<sup>60</sup> In this context, investor concerns about greenwashing cannot sufficiently be addressed due to the lack of a legally-binding standard. Under the International Capital Market Association's (ICMA) Green Bond Principles (GBP), there are provisions that management of proceeds is to be audited by an external auditor, or other third party, to verify the internal tracking method and the allocation of funds from the Green Bond proceeds.<sup>61</sup> This, however, is a voluntary standard.

Informants and written sources agree that the scale of most RES projects by energy communities can also be challenging to tap into banks' capital. These projects are often too small to be considered profitable.<sup>62</sup> Likewise, commercial banks generally lack knowledge and understanding of the concept of Energy Communities and are therefore less ready to offer tailor-made financial solutions.<sup>63</sup> This situation is compounded by the reluctance of institutional investors and lenders (such as pension funds and banks) to invest in renewable energy or grid infrastructure because of the expected discontinuation of some policies (in the context of the energy transition).<sup>64</sup>

Ethical banks, by contrast, have played an instrumental role in bundling small projects (such as ECs) in a single security (i.e., a green bond) which would otherwise not be financeable. This has reduced transaction costs, effectively underwriting investment risk and increasing investors' confidence (including lessening the perceived risk). However, the positive aspects of ethical banks are limited by insufficient policy initiatives to make a bigger impact.<sup>65</sup> In this context, there is consensus amongst key informants and written sources about the lagging government policy support to promote private finance for REC projects. For this purpose, policy makers must take into account the risk and return aspects of REC technologies and tailor policies accordingly. For example, for mature technologies such as wind and PV (which require higher return levels to compensate for the risk) the policy support level is higher than for less mature technologies.<sup>66</sup> This discourages investors from investing in less mature technologies such as geothermal and tidal and to prioritise technologies that are not suitable or desirable for all ECs. By the same token, governments could also reduce tax on renewable energy investment and extend maturities (especially where commercial investors are present but poorly suited for project finance).<sup>67</sup>

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<sup>i</sup> For example, debt and equity finance are arguably less risky than profit-sharing crowdfunding because institutional financiers engage in due diligence and will only finance projects with a robust business case.

Another problem is that of the positive externalities of RES projects, which are largely ignored by mainstream private financiers because they can hardly generate revenue that can be counted as collateral-raising assets.<sup>68</sup> This underscores the need for increasing institutional financiers' understanding of the nature, performance, and credit risk of REC projects to become comfortable with providing debt. Linked to this, guarantees can play a role in mobilising finance for REC projects. However, guarantee systems are still tailored to large sums and, not unlike debt finance, involve a long process of approval.

Lastly, while alternative finance instruments have been considered vital in providing explicit financial backing for projects such as ECs,<sup>69</sup> their impact remains limited. The published sources consulted for this research agree that one of the major constraints of crowdfunding is that the model is not scalable and that there are issues around licensing and regulation. In this context, most crowdfunding schemes still lag in the implementation of due diligence and generally lack management and information disclosures to protect investors.<sup>70</sup> According to our informants, crowdfunding also lacks the safeguards to avoid investment in projects that can exacerbate problems such as land speculation (like, for example, crowdfunded land purchases for PV or wind farms). Likewise, equity-based crowdfunding (i.e., when crowdfunders become shareholders of the project and have the right to share the projects) requires a substantial administrative effort to manage the numerous shareholders, which can be a burden for small projects or where the capacities of the EC are limited.<sup>71</sup>

# 4

## Public funds

**Public financing – in the form of grants, loans or a combination of the two – can provide an interesting solution to risk-averse energy communities throughout the EU. There has also never been more legal or political basis to provide such financing opportunities, nor more EU budget available to push for an energy transition that is sustainable and locally relevant. This section briefly summarises these potential opportunities at the EU level, and provides some examples of how these have made their way into supporting ECs in national, regional and local contexts thus far.**

### 4.1 EU regional funding

The EU's Green Deal is an ambitious agenda to decarbonise the economy, one which requires enormous investments. Add to this the economic impacts of the COVID-19 pandemic and the worsening effects of the climate crisis, the EU has responded with an unprecedented financial package which provide new opportunities - and challenges - for those seeking to provide a socially innovative energy solution. In this section, we review some of the main funding sources for which ECs bring strategic relevance in the form of providing social innovation and a solution to the energy transition.

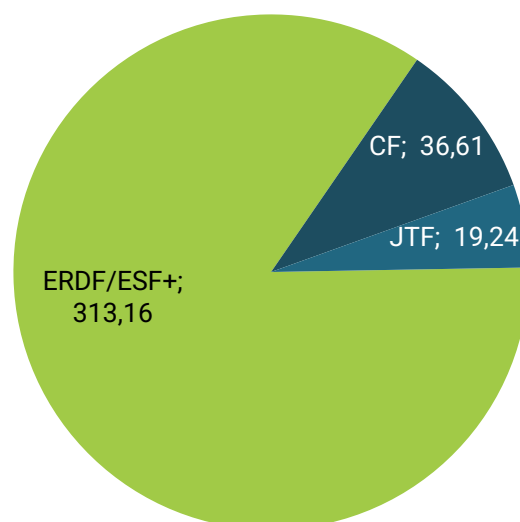
#### 4.1.1 Cohesion policy funds

Cohesion policy is the EU's strategy to promote and support the 'overall harmonious development' of its Member States by reducing disparities in the level of development between regions. In order to reach these goals, € 392 billion – almost a third of the total EU budget has been set aside to deliver the Cohesion Policy for 2021-2027.<sup>72</sup>

The cohesion policy 2021-2027 is delivered through specific funds (Figure 3) which each focus on different elements of the main policy objectives:<sup>73</sup>

- The European Regional Development Fund (ERDF), to invest in the social and economic development of all EU regions and cities.
- The Cohesion Fund (CF), to invest in environment and transport in the less prosperous EU countries, targeting Bulgaria, Croatia, Cyprus, Czechia, Estonia, Greece, Hungary, Latvia, Lithuania, Malta, Poland, Portugal, Romania, Slovakia and Slovenia.<sup>74</sup>
- The European Social Fund Plus (ESF+), to support jobs and create a fair and socially inclusive society in EU countries.
- The Just Transition Fund (JTF) to support the regions most affected by the transition towards climate neutrality.

**Figure 3** Initial allocation available for Cohesion Policy programming



Source: European Commission (n.d.) "Available budget of Cohesion Policy 2021-2027," online: [https://ec.europa.eu/regional\\_policy/en/funding/available-budget/](https://ec.europa.eu/regional_policy/en/funding/available-budget/), viewed August 2022.

On the surface at least, there is considerable alignment between EC offerings and the strategic objectives of the cohesion policy for a smarter, innovative, low-carbon and citizen-led Europe. Climate change mitigating targets form a large part of the Cohesion Policy funds strategic objectives – one of the policy priorities for 2021-2027 is a greener, low-carbon transitioning towards a net zero carbon economy,<sup>75</sup> and a dedicated share of the ERDF (30%) and CF (37%) have to be spent on climate action.<sup>76</sup>

In the context of delivering these objectives for EU rural development, one organisation put it this way: *"Community energy can be viewed as a cross-cutting 'multiplier' that can allow or improve outcomes and create economic and social benefits that stay local. In many cases, it will be a value-adding component to other economic, social, education, tourism or environmental projects."*<sup>77</sup>

One example of such multiplier effects is the Eno Energy Cooperative in Finland, for which EU structural funding under the BIO4ECO project was used to finance the construction of the heating plants.<sup>78</sup> Today, the co-operative can provide the heating network with around 30% of its wood fuel requirements, with the remainder sourced from other local suppliers. Over fifteen years, customers have saved over €4 million compared to fossil fuels, whilst creating the equivalent of ten full time jobs and diversifying income for forest owners. In total, it is estimated that the co-operative provides economic benefits to the region of around €2 million per year.<sup>79</sup>

As of June 2022, 19 Member States had submitted partnership agreements detailing how to use cohesion policy funds for the 2021-2027 programming period.<sup>80</sup> There is some literature connecting how the cohesion policy funds are deployed in national and regional budgets, and how these could be used by regional and local authorities looking to support EC development. For example, advocacy and research conducted by the CEE Bankwatch Network and REScoop.eu monitor such developments in Central and Eastern Europe, but have for the most part found inadequate consideration of EC needs in the legislative and administrative set-up.<sup>81</sup>

The Just Transition Fund, part of the wider Just Transition Mechanism, is covered in more detail in Section 4.1.3 as it's priorities to support the low-carbon transition for specific regions are aligned with the potential of ECs.

#### 4.1.2 Recovery and Resilience Facility

In addition to the usual EU regional budgets represented under the Cohesion policy, the EU has committed to raising additional funding to relieve the economic and social impacts of the pandemic and to reach the increasingly ambitious climate targets of the region. This funding package, called NextGenerationEU, is made up of several programmes and contributions, but the largest by far is the Recovery and Resilience Facility (RRF) (Figure 4).

The RRF is an instrument to offer grants and loans to support reforms and investments in the EU Member States with a total value of €723.8 billion in current prices. The RRF entered into force on 19 February 2021, and finances reforms and investments in Member States from the start of the pandemic in February 2020 until 31 December 2026.<sup>82</sup>

**Figure 4** NextGenerationEU funding package



Source: European Commission (n.d.) "NextGenerationEU," online: [https://ec.europa.eu/info/strategy/eu-budget/eu-borrower-investor-relations/nextgenerationeu\\_en](https://ec.europa.eu/info/strategy/eu-budget/eu-borrower-investor-relations/nextgenerationeu_en), viewed August 2022.

To benefit from the support of the Facility, Member States submitted their recovery and resilience plans to the European Commission. Each plan sets out the reforms and investments to be implemented by end-2026 and Member States can receive financing up to a previously agreed allocation. The RRF plans must set targets ensuring that at least 37% of the funds are invested in initiatives which support climate targets, and that policy reforms maximise the impact of these investments.<sup>83</sup>

As of 2022, all Member States have submitted a plan, and most have been approved by the Council. However, the recent emergence of the REPowerEU plan in the context of the policy shift away from Russian fossil fuel sources, means that Member States must submit an additional chapter to their RRF plans in order to benefit from the REPowerEU funds.<sup>84</sup>

The European Commission guidance on REPowerEU chapters does not explicitly mention ECs, and for the most part focuses on large-scale measures to decrease consumption and increase generation and capacity of energy within the EU, through infrastructure investments for example.<sup>85</sup> However, the examples provided for policy reforms show some consideration of the role of ECs in the REPowerEU objectives. This includes reforms to facilitate permit-granting procedures and removing administrative barriers, both key to the roll-out of ECs. There is also an explicit mention of risk insurance and mitigation schemes for investments in RES, as well as tax incentives for companies and consumers to shift towards low-carbon options, and deploy local renewable capacity.<sup>86</sup>

The nature of the RRF ambitions, and the additional support of the REPowerEU targets for the green transition, all provide promising direction which some countries have been making use of to take the development of ECs into strategic consideration (Box 1).<sup>87</sup>

### Box 1. Supporting RECs through the RRF: Example in Italy.

The Italian RRF plan, one of the first to be submitted, provides a sum of €2.2 billion for the establishment of RECs in small municipalities with a population below 5,000 inhabitants. This results in an estimated cash flow worth up to €1 million for each eligible city and will support expenses ranging from technical assistance, to material purchases for development and construction. Some Italian regions – like Piedmont, Apulia, and Lombardy - are also making additional contributions to support municipalities in the establishment of local RECs.

Source: Fouquet, D. (2022) *Report on novel financing instruments for RECs*, Deliverable 4.2, V2, COME-RES: Advancing Renewable Energy Communities, p.41.

There have been concerns over the RRF plans overall. This includes support of fossil fuel-related investments, lack of transparency and due diligence around hydrogen investments, and an overemphasis on supporting electric vehicle roll-out rather than public transport infrastructure.<sup>88</sup> Moreover, in Central and Eastern European Member States, there is concern by key advocates<sup>89</sup> that the role of energy communities has been ignored in most plans, and where they are recognised, it is with insufficient consideration and resources.<sup>90</sup> There is also the issue that local action groups in some countries are still waiting for the basic transposition of REC/CEC definitions into domestic law.

#### 4.1.3 Just Transition Mechanism

The Just Transition Mechanism (JTM) is a key tool for supporting the regions, sectors and workers most affected by the transition towards climate neutrality and for preventing an increase in regional disparities. The JTM is expected to mobilise around € 55 billion in the period 2021–2027 to finance the diversification and modernisation of the local economy and mitigate the negative repercussions on employment.

The mechanism consists of three pillars:

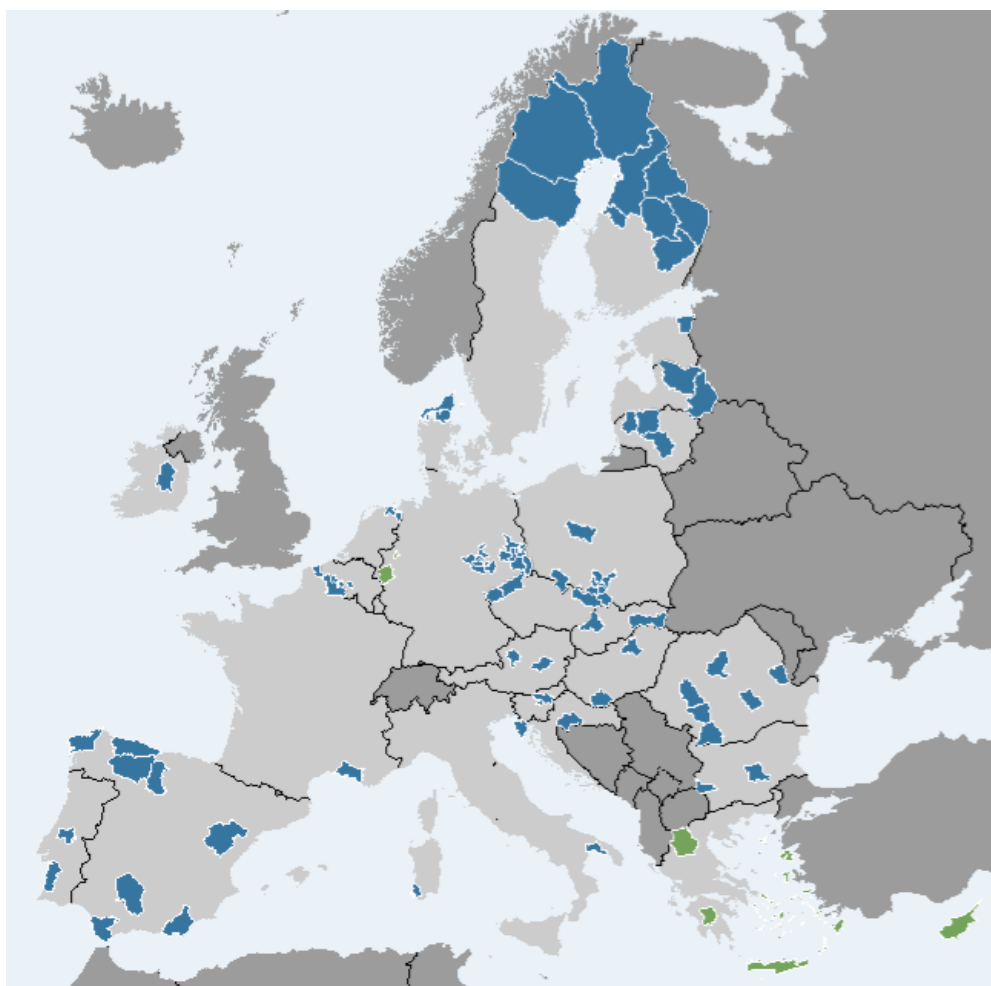
1. **The Just Transition Fund (JTF)**, mostly providing grants for regions dependent on fossil fuels and high-emission industries. Activities should primarily support economic diversification and measures to address negative employment impact of energy transition in impacted sectors (e.g., fossil fuels) but other investments into energy efficiency and RES, are also eligible.<sup>91</sup> The JTF is governed as a Cohesion Policy fund, which means that national or regional authorities are responsible for selecting the projects to be funded.
2. **A dedicated scheme under the InvestEU programme**, which provides technical assistance and guaranteed loans for a wide range of investments, such as energy and transportation infrastructure, digitalisation and digital connectivity, and circular economy investments.<sup>92</sup>
3. **A public sector loan facility provided by the European Investment Bank (EIB)** to mobilise additional investments in the regions concerned. The European Investment Bank (EIB) will provide up to €10 billion in loans as finance partner, while the Commission will provide up to €1.5 billion in grants.<sup>93</sup>

All sectors, thematic areas and activities that will benefit from these different pillars of the JTM must be justified in the Territorial Just Transition Plans (TJTJs). These must be submitted either as a single country-wide TJTJ or several region-specific TJTJs, but all must be developed in public consultation with all relevant stakeholders, including civil society and local community representatives as set out by the European Code of Conduct on Partnership.<sup>94</sup>

Perhaps due to the inherently consultative and participatory nature of the TJTJs (at least in theory), the development of the plans has been severely delayed. One full year into the deployment of the JTF, only regions in two countries (Greece and Germany) have approved TJTJs (Figure 5). One study in Central and Eastern Europe found all assessed countries struggling to create a truly transparent, evidence-based and collaborative plan, despite an early start and technical assistance from international private consulting companies like PwC and KPMG.<sup>95</sup>



**Figure 5** Just Transition Fund territories 2021-2027



In green are territories in approved TJTPs; In blue are territories proposed by the European Commission. Additional territories have been proposed by some Member States and may be accepted as part of territorial just transition plans.

Source: European Commission (n.d.) "Just Transition Platform," online: [https://ec.europa.eu/regional\\_policy/en/funding/jtf/just-transition-platform/](https://ec.europa.eu/regional_policy/en/funding/jtf/just-transition-platform/), viewed August 2022.

In the regulations and guidelines establishing the JTF, the types of activities that can be funded through JTF financing clearly focus on small and medium-sized enterprises (SMEs), education in the form of reskilling and upskilling, research, RES technology (including infrastructure and storage), as well as digitalisation.<sup>96</sup> Though there are no specific provisions for ECs, it would seem that the model of ECs could be justified as providing cross-cutting services related to the activities included.

Moreover, despite these promising provisions in the guidelines, some of the TJTPs so far show a narrower interpretation used to spur investments in larger-scale elements of the energy transition. In places like Sweden, the TJTP has raised concern among trade unions and civil society groups, who worry that the plans are too focused on the economic cost of helping key industries like steel transfer to climate neutral, carbon-free technologies.<sup>97</sup> In Estonia, there are pressures to allocate approximately 70% of the JTF to industry measures, and one observer commented that "*Many stakeholders in the working groups have no interest in any line in the TJTP that does not include the word 'jobs'.*"<sup>98</sup>

Greece submitted the first and one of only two approved TJTPs. In the Greek TJTP, specific provisions are made for strengthening self-production through ECs as part of the energy transition in regions of Western Macedonia, Megalopolis and adjacent municipalities, as well as the islands of North-South Aegean and Crete. The island region is especially important as many of these, especially in the Aegean Sea, are not connected to the mainland's infrastructure and tend to rely heavily on fossil fuels.<sup>99</sup> The Greek plan will benefit from grants amounting to €1.38 billion from the JTF and may unlock more financing from the other JTM schemes.<sup>100</sup> Despite promising developments in the country and the EC movement, there are reports that ECs in Greece are facing many challenges. This includes struggling to find available grid, and facing 'community-washing' wherein private investors are establishing themselves as energy cooperatives to take advantage of the favourable financing and regulations with impunity.<sup>101</sup>

The overall amount of the JTM financing is small relative to other funds like the RRF – compared to the rest of the EU budget, the JTF is miniscule, between 1-3%.<sup>102</sup> Yet, the JTM financing mechanisms represent a potentially impactful financing mechanism for ECs who provide a socially innovative model in areas struggling with energy poverty and transitioning away from fossil fuel sources. This makes the TJTPs a potential entry point to advocate for the governance model of EC as part of an alternative solution for a truly just transition, following the example in Greece.

#### 4.1.4 Modernisation Fund

The Modernisation Fund (MF) is a dedicated funding programme to support 10 lower-income EU Member States in their transition to climate neutrality by helping to modernise their energy systems and improve energy efficiency. The beneficiary Member States are Bulgaria, Croatia, Czechia, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, and Slovakia, with a proposal to add Greece and Portugal in the revised directive.<sup>103</sup>

The MF is mainly funded from revenues from the auctioning of 2% of the total allowances for 2021-30 under the EU Emissions Trading System (EU ETS), with a proposal to increase this to 2.5%. At the current carbon price this amounts to almost 67 billion euros,<sup>104</sup> with shares being divided between the 10 countries unevenly according to the EU ETS directive.<sup>105</sup>

There have been issues brought up in relation to the details of how the MF can be used, including the fact that about a fifth of the funds may be allocated to fossil fuel investments.<sup>106</sup> However, there are also clear opportunities for ECs with links to the strategic objectives of the MF, starting with the fact that funds are disbursed in short cycles of 1 year. This means that each year there is a call to submit a proposal for the development of EC programs under the MF.

Additionally, there are already a few countries in which MF funds have been awarded for programmes on ECs. In 2021, Hungary was awarded €20 million for programmes for the development of ECs, seemingly focused on RES.<sup>107</sup> According to the Hungarian managing entity's annual report in 2021, call for proposals under this programme were set to be launched in July 2022<sup>108</sup>, though no further details are yet available (in Anglophonic online literature). In Czechia, 1.5% of receiving MF funds are going to supporting community energy projects.<sup>109</sup>

Both the Hungarian and Czechian examples provide a basis for other projects to submit proposals to the managing authorities in their Member States.

## 4.2 National support schemes

Energy communities need targeted financing tools which support their development whilst simultaneously preserving their democratic governance and ownership.<sup>110</sup> Moreover, while the above EU funding comprises mostly grants and some loan-based mechanisms (e.g., JTM InvestEU loans), these often have high investment thresholds and can present considerable technical and administrative challenges to smaller-scale projects that characterise most ECs. There is also no unified EU system for renewables subsidies and tariffs, likely because energy costs are so varied between the Member States.<sup>111</sup>

There are existing models of subsidies and support schemes at national level attempting to provide for the needs of ECs which tend to be more risk-averse. One of the main issues in EC uptake is that in the pre-feasibility and early development phase, many projects are dependent on their members to raise capital. If the project fails, members lose their initial investment, which for example in Ireland, can range from € 30,000 - 400,000 depending on the scale of the project and the amount of environmental impact assessments involved.<sup>112</sup> This not only creates a risky and competitive situation, it also means that only groups with higher levels of income and/or wide technical and municipal support are able to consider forming an EC.

In the following sub-sections, we will review some of the key national subsidies and support schemes which ECs have used for support especially in the start-up phase, the main challenges and opportunities afforded by such schemes, as well as the revolving fund model which is providing a potential novel alternative.

### 4.2.1 Policy and market-based mechanisms

Due to the potential system benefits of ECs (i.e., reduced use of the public electricity network due to internal generation and balancing), subsidies and policy support mechanisms are being investigated or are already in place.<sup>113</sup>

Historically, the business models of many ECs depended on feed-in-tariffs (FITs),<sup>114</sup> a policy tool designed to promote investment in RES and which usually entails guaranteeing producers an above-market price for what they deliver to the grid. Feed-in tariffs has been shown to support the development of small-scale RES projects in early project phases when production is often not economically feasible.

Despite the successful role feed-in tariffs have played in promoting the development of renewable energy, most Member States are phasing them out, instead seeking more market-driven sources of support as well as more control over the supply of renewable energy that is produced.<sup>115</sup> In Czechia,<sup>116</sup> the UK<sup>117</sup> and Germany,<sup>118</sup> the removals of FITs had a tangible impact on smaller-scale EC development, essentially stopping it in its tracks.

Increasingly, market-based mechanisms like auctions and tenders are emerging for financing RES projects, where EC projects must bid against each other and other projects to win financial support from public lenders. Because these tenders operate within the framework of political-economic policies, the bidding system often favours projects run by larger developers with a wider portfolio and are thus not built for the needs of ECs.<sup>119</sup> An exception is the support scheme in Ireland, which reserves a portion of the tenders specifically for REC projects, though these projects must still compete with each other for the financing.

Further indicative of this is a view from the EC movement itself. In a forthcoming study by the COME-RES programme, a stakeholder survey in EU/EEA countries found that auctions/tenders were, for the most part, not considered important sources of financing schemes.<sup>120</sup> To address this trend, Friends of the Earth have advocated different ways to create favourable and simpler auction processes for ECs.<sup>121</sup>

#### 4.2.2 Revolving funds

In the emerging literature on ECs, a lot of attention is being paid to revolving funds. A revolving fund is a model wherein a capital pool is dedicated to funding projects that plan to generate cost savings, a portion of which are then used to repay the initial investment and to replenish the fund (i.e., funds are revolved). Revolving funds are used in different sectors and countries but are gaining specific traction in small-scale sustainability projects in order to mitigate the risk and cost issues with accessing initial capital.<sup>122</sup>

In the context of ECs today, revolving funds usually refer to emerging government schemes which combine the flexibility of traditional loans with the security of a government grant. The idea is that ECs have access to loans for financing pre-feasibility and early development stages, which can then be repaid as the project moves forward and capital from more traditional sources (i.e. members, banks and other financial institutions) takes over, and which the scheme can then use to support other ECs.<sup>123</sup> Others use the term to also refer to a revolving fund which combines a loan-to-grant model.<sup>124</sup> In this type of scheme, the loan from the revolving fund can become a grant in the event that the project is not successful.

In practice for ECs, this means that they could receive a loan to finance start-up costs and buy the project back later to maintain democratic and participatory ownership, while also maintaining a self-sustaining funding mechanism for the EC movement at large. Where a loan-to-grant model is used, the risk involved in upfront investment of the pre-feasibility phase is eliminated altogether.

There is also the idea of a European level revolving fund, in which ECs can apply for a low-interest loan which becomes a grant in the case that the project does not progress to financial close. Some propose that access to this revolving fund could be managed by a dedicated EU EC financing facility, and would encourage the necessary administrative infrastructure to emerge (e.g., OSS, simplified admin for ECs).<sup>125</sup> For now, these plans remain theoretical, though key advocates in the EC movement have been suggesting such ideas for a long time.<sup>126</sup>

### 4.3 Examples of national implementation of support to ECs

In the following sections, we review case studies in Ireland and the Netherlands which are implementing the revolving fund model as part of their package of financial support to ECs and summarise some key takeaways from these still very novel examples.

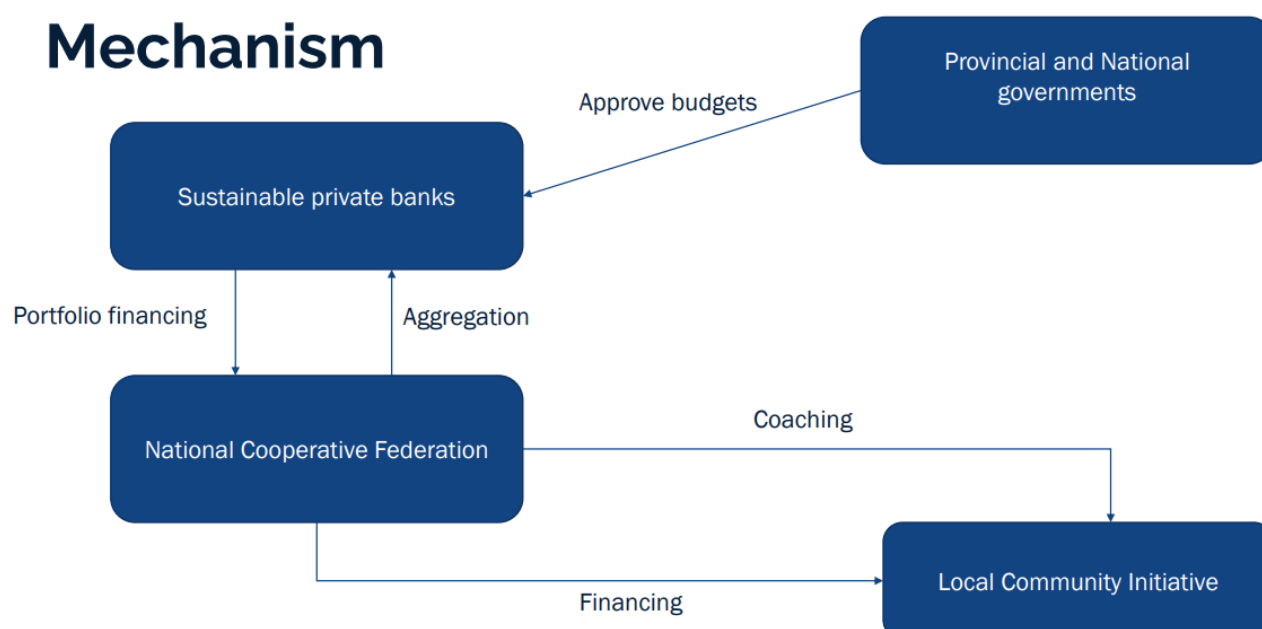
#### 4.3.1 Support for RES cooperatives in the Netherlands

In the Netherlands, the National Green Fund has been operating a revolving fund for almost 30 years for various sustainability project in the country.<sup>127</sup> Since 2021, they have been working with the Ministry of Economic Affairs and Climate Policy (EZK) and InvestNL to bring this model to the energy cooperative sector in the Netherlands. The Development Fund for energy cooperatives was launched in 2021 by these three parties and is managed by the cooperative network Energie Samen.<sup>128</sup>

Through this fund up to 70% of the start-up costs for cooperative wind and solar projects can be pre-financed (with a motion to add heating projects to the scope in place). If the project reaches financial close, the cooperative repays the initial loan as well as a 'risk premium' depending on the project stage which was financed. In this way, the Development Fund is replenished to be used by other cooperatives. If the project does not ultimately go ahead, the cooperative does not have to pay back the initial loan, effectively turning it into a grant.<sup>129</sup>

**Figure 6**      **How the Development Fund works**

## Mechanism



Source: D'Herbemont, S. (2022) "Support Energy Communities through Cohesion funds," (Powerpoint presentation), *How can managing authorities support the development of energy communities?*, Online webinar, 8 July.

Projects can apply for pre-financing at any phase of start-up, from feasibility, to development and construction, and these are supervised by a project agency affiliated with Energie Samen which also provide technical assistance. The earlier a project is in its life cycle, the higher the risk premium you pay if the project moves forward (Table 3).

Through this model, the feasibility phases of starting up a project are de-risked for the members of a potential cooperative, something that can be a major hurdle to start-up if there is no initial capital to start with. However, the risk premium that must be repaid with the initial loan is very high, up to 200% for the feasibility phase of wind projects. This means that if such a project is considered feasible, and thus allows a cooperative to get a loan from another financial institution, the initial loan will be repaid with an additional 200% interest on the value. This allows the fund to sustain itself given that the loans to failed projects will not be paid back at all.

**Table 3 Maximum loan amounts and risk premiums (EUR thousand)**

Phase	Wind max loan	Wind risk premium	Solar max loan	Solar risk premium
Feasibility studies	10	200%	3	100%
Development phase I (e.g., permit)	75	50%	25	25%
Development phase II	150	50%	25	25%
Preparation construction	300	25%	20	25%
<b>Total</b>	<b>535</b>		<b>73</b>	

Source: Energie Samen (2021) *Voorwaarden Ontwikkelfonds Energiecoöperaties voor aanvragers en projecten*, [Dutch].

How this astronomical premium is managed in practice, and whether it is an attractive offer for these sizes of wind and solar project is yet to be seen. As of early 2021, the fund is only open in the provinces of South Holland and Limburg, with Drenthe and Utrecht are still in preparation phases.<sup>130</sup> Moreover, the fund size is relatively small for now. The Dutch Ministry of EZK is providing € 10 million, with the participating provincial governments contributing additional funds to make a total of € 14.5 million available.<sup>131</sup>

Though this revolving fund is still experimental and being implemented currently, it forms only a part of a larger package of national and regional subsidies and support schemes used for the development of RES, some of which builds in consideration to ECs. All this is to support the Dutch government's ambition in its climate agreement to have 50% of RES production owned by communities.<sup>132</sup>

For example, the Dutch government also introduced a policy in 2018 for reducing energy taxes at a community level. Called the '*Postcoderoosregeling*' or the "reduced rate scheme," this regulation is aimed at members of renewable energy cooperatives and entitles those members within and adjacent to postcode of the RES project to a discount on their energy taxes.<sup>133</sup> This has since been replaced by the Cooperative Energy Generation Subsidy Scheme (SCE), which in 2021 had a maximum of €92 million to provide in the form of operational subsidies paid per kWh produced.<sup>134</sup> The subsidy is linked to the market price for energy, meaning that if the energy price rises, the cooperative will receive less subsidies, and vice versa.<sup>135</sup>

Energie Samen also have a fund financed by three Dutch banks – ASN, Rabobank and Triodos - which gives out loans for energy cooperatives with a business plan, usually to complement projects which have already received a separate subsidy for development of RES.<sup>136</sup> Netherlands also provides an operating subsidy called the Sustainable Energy Incentive Scheme (SDE) for larger projects, for which €13 billion is available in 2022.<sup>137</sup>

#### 4.3.2 The Renewable Energy Support Schemes (RESS) in Ireland

ECs in Ireland benefit from the context of strong public and industry support for community-led projects,<sup>138</sup> and an ambitious target for 80% renewable electricity by 2030 set by the national government. Indicative of this supportive political and cultural context is the fact that Ireland is the first to provide a scheme tailored entirely and specifically to RECs.<sup>139</sup>

The Renewable Energy Support Scheme (RESS) in Ireland is the government's flagship RES investment instrument, and operates as a competitive auction-based scheme which invites renewable electricity project to bid for capacity and received a guaranteed price for the electricity they generate. The first auction, dubbed RESS-1, saw over 82 onshore wind and solar farm projects secure 15 years of funding.<sup>140</sup> The RESS replaces the former Renewable Energy Feed-in Tariff, aiming to shift guaranteed fixed prices for renewable generators (feed-in tariffs) to a more market-based mechanism (i.e., through the implementation of renewable auctions), where the cost will be determined by competitive bidding between renewable generators.<sup>141</sup>

Despite the liberalised system, the RESS has been designed explicitly with ECs in mind. In the words of the RESS high-level design document approved in 2018: "*Communities are being designed into the fabric of the new Renewable Electricity Support Scheme. The RESS will be characterised by increased community participation in, and ownership of, renewable electricity projects.*"<sup>142</sup>

Community-led projects can apply for RESS if they qualify as an REC (i.e., based on open and voluntary participation, and place-based) and have a project size between 0.5-5MW. There will be a separate community category in the auction, to ensure equal participation of these groups. RESS provides financial support for these projects across early phases of development and would also deliver key capacity building supports such as advisors and intermediaries to support communities who may wish to develop renewable energy projects.<sup>143</sup>

Community projects will benefit from:



- grants of up to € 25,000 per project for feasibility studies
- development loans of up to € 150,000 per project; and
- grants for the cost of professional advice covering all aspects of project delivery (legal, financial, and technical).<sup>144</sup>

Additionally, a revolving fund forms part of community participation in the RESS. A mandatory Community Benefit Fund must be provided by all projects successful in a RESS auction, with a contribution set at €2 per Megawatt hour of generation of the project. So each project financed under the RESS must contribute to a fund which depends on the income generated from the project. In this way, the RESS sustains a revolving community fund. In the first phase of the auction RESS-1, community benefit funds are estimated to deliver approximately € 4.5 million a year to community initiatives including education, energy efficiency, sustainable energy and climate action initiatives in the areas benefiting from RESS-1 funds.<sup>145</sup>

### 4.3.3 Key takeaways

It is far too early to understand the advantages and disadvantages of deploying these financing schemes for ECs, especially given how quickly they are changing and being replaced by different mechanisms. However, there are some common features are emerging which may account for the potential around these cases in the Netherlands and Ireland:

- Investments are de-risked by bridging the crucial pre-feasibility gap
- Technical assistance is bundled into to the financial package
- Access is provided to an EC network to facilitate cooperation and collaboration, e.g., Energie Samen and the SEAI Sustainable Energy Community Network
- One of the primary objectives of an EC – community benefits – is supported through a revolving fund which makes financing available in the long-term for multiple projects (in theory)
- There are multiple options for EC financing and policy support which fit different sizes and business models of ECs, e.g. smaller lower-cost loans, risk-free loans, public-private partnership grants, subsidies, etc.

In targeting the riskier phases of project development, and recognising the nature of ECs as a heterogenous group with diverse needs, the schemes in the Netherlands and Ireland aim to take account of different ECs. Whether this can translate long-term into a flourishing and well-supported EC movement is yet to be seen.

## 4.4 Barriers in the public financing of ECs

The funds examined in this chapter are the key regional funding opportunities provided by the EU that ECs could make use of today. Still, there are many types of public funds which are currently explored for sources of financing the EC movement, including for example in research and innovation, in rural development, and energy efficiency in public housing. In one example, a creative practitioner in La Palma, Canary Islands thought that the 2021 volcanic eruption may provide an opportunity for the development of RECs, as such initiatives could be prioritised as part of the reconstruction funds.<sup>146</sup>

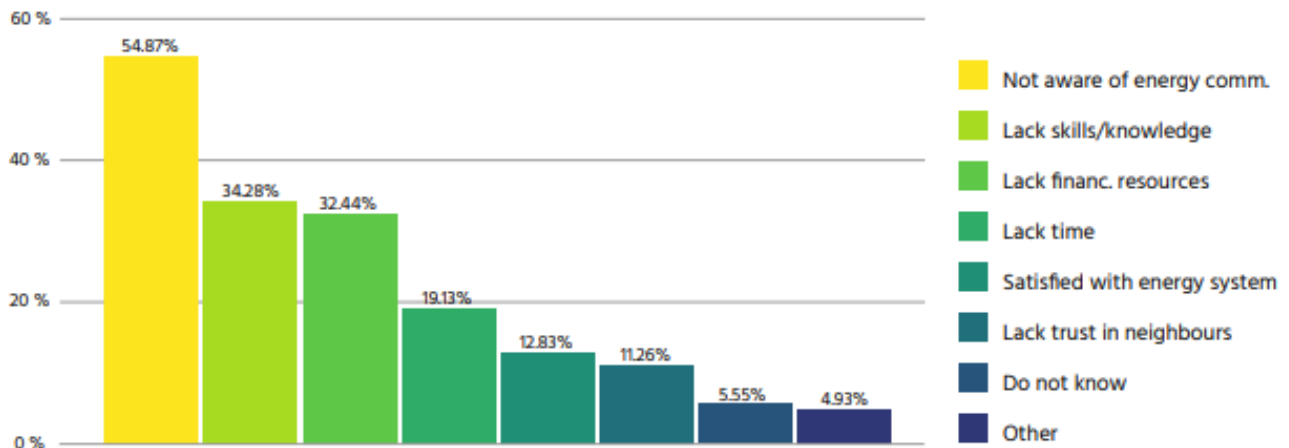
There is also an increasing recognition of the need to develop specific tools to support ECs in their development if we are to see more and more of this movement throughout the EU. For example, the LIFE Programme currently has a call for proposals open on developing support mechanisms for energy communities.<sup>147</sup> This includes the development of financial tools to facilitate the emergence of community energy projects and their access to citizen finance and bank loans.

Although EU funding is theoretically available and strategically aligned with the EC offering, these types of public funds are not the main financing resources for ECs today. This is for many reasons, all representing barriers for increased usage of public funds to encourage the creation of ECs.



At a very general level, NEWCOMERS' research results show that awareness levels on ECs differ greatly between European countries, which presents challenges around creating supportive policies and laws.<sup>148</sup> Across research programmes on the topic, it was found that over half of all participating citizens stated they did not join an EC simply because they were not aware of the existence of this solution (Figure 7).<sup>149</sup>

**Figure 7** Reasons for not joining an energy community



**Figure 3:** Reasons for not joining an energy community (Source: Newcomers D6.3 p.60)

Source: COMETS, NEWCOMERS, SocialRES and SONNET (2022) Putting people at the heart of energy transitions. Social innovation in energy: four projects shine a light on the path forward, Brussels/Antwerp: COMETS, NEWCOMERS, SocialRES, SONNET H2020 projects, p.10.

Lack of acceptance is in some places rooted in scepticism towards cooperative models or sharing economy principles,<sup>150</sup> something which has been observed especially in Central and Eastern European countries with socialist histories.<sup>151</sup>

More specifically, in the case of regional development funds, accessing grants depends on the plans and strategies determined at national, regional and/or local level of public authority, which are not always transparent, well-known or adequately influenced by the relevant civil society. These are moreover hindered by incomplete adoptions of the provisions for CECs and RECs in the REDII and the IEMD, respectively, with current regulations around definitions and the enabling framework considered too complex and ambiguous.<sup>152</sup>

Finally, funding schemes are, for the most part, not built for the needs of ECs. Many regional funding programmes require budget or investment threshold which are too high for most ECs to qualify, and the complex processes for awarding grants holds back many of the groups with less technical and organisational capacity to participate.<sup>153</sup> Schemes that are tailored to the needs of ECs are now emerging, as is seen in the case of Ireland and the Netherlands, and are met with enthusiasm from the EC movement, but it is still too early to determine their impact.

Despite these current barriers, EU funds and their equivalent in national, regional and local budgets are an important space to advocate within for financing ECs. First, it would support the equitable development of ECs throughout Europe. Private financing methods are often only accessible to a higher/middle-income population. In order to have a just, sustainable transition and the proliferation of energy communities in areas which need it most (where energy poverty is present, where vulnerable communities are present, remote areas), there need to be structural adjustments that support the formation of communities in all areas and walks of life.

Additionally, there are regions of Europe, particularly in Central and Eastern Europe where some of the main tenets of EC success – trust in political institutions, acceptance of the cooperative structure, existing successful examples – are not present, and where the movement may not grow organically without the support of and from local authorities. Making public funds available (and accessible) could also help get citizens on board.<sup>154</sup>

Finally, stakeholders in EC development are already looking to public funds as an important source of potential support. One small indication of this comes from looking at the interest in the LIFE 2021-2024 grant on the Clean Energy Transition – of the 168 proposals submitted to the 18 different call topics, 30 or 18% were for the workstream on ECs, more by far than were submitted to other topics.<sup>155</sup>

# 5

## Conclusions and recommendations

Since 2019, the EU legislation provides unprecedented recognition and support for the role that ECs can play in transitioning to a just, sustainable economy. The opportunity presented by these types of provisions in the CEP are clear – all Member States are required to provide consideration of and specialised support to CECs and RECs, and in the case of RECs explicit financial support. Expenditure of public funds and developing private/hybrid financing mechanisms must also reflect these policy changes. Civil society organisations and energy community networks have welcomed the progress in EU-level policy, while also advocating for increased considerations in implementation at national, regional, and local levels.

### 5.1 Conclusions

Energy communities have different financing processes and needs from traditional initiatives. Private financing mechanisms are difficult for ECs to tap into because they do not present the typical business case that financial institutions are interested in investing in – they are small, risky, maintain democratic governance and ownership models and generally raise the bulk of their financing after the financial close of their project.<sup>156</sup>

On the other hand, public funding strategic objectives and regulatory needs have never been more aligned with the offering of ECs in the EU's transitioning energy system. And yet, the challenge remains that the relevant public funds are largely inaccessible to those without expertise in tapping public funds, and this access is further hindered by delayed, inadequate and/or constantly changing national and regional policies.

In fact, all types of financing mechanisms are hindered by the incomplete adoption of provisions for RECs and CECs in the REDII and the IEMD, respectively. As a result of the incomplete implementation of REC provisions, the much-needed coordination between different financial support instruments that could be used to promote relevant ECs is not being established.<sup>157</sup>

Finally, in both public and private types of financing mechanisms, very few of the tools available today are specifically for the development of ECs – rather, ECs may participate in the increasing funds and support schemes available for encouraging the development of, for example, renewable energy technologies, initiatives for energy efficiency and alleviating energy poverty. However, and most importantly, because these schemes are not tailored to ECs, they do not deal with the specific and sometimes diverse needs of EC movements, which are characterised by low technical and organisational capacity, lack of start-up capital, risk-aversiveness and a need for democratic and participatory governance.

## 5.2 Opportunities and recommendations

ECs provide a unique combination of impact that is relevant for the EU's combined objectives, namely increasing security of energy supply, reducing energy consumption, decentralising the grid infrastructure, and providing environmental and social benefits which hit on climate targets.<sup>158</sup> ECs also arguably provide capacity building for a new, green workforce. Given the ambitions of the EU budget are to create a just, sustainable transition, there is a unique opportunity to shed light on the role that ECs can play in this new world.

There are opportunities to advocate for increased consideration of ECs in the deployment of EU funds, for example:

- The cohesion policy review period may provide an opening for increased consideration of ECs in this regional fund, especially considering the alignment of the strategic objectives and increasing EC movements in most Member States. In addition to advocacy, support monitoring activities for the deployment of the Cohesion Policy funds, e.g., by Bankwatch and REScoop.eu networks.
- Regional/local CSOs must be empowered to advocate for the inclusion of energy communities and other decentralised mechanisms for a just transition in the TJTPs. There are existing resources and best practice to draw on, including the best practice of sharing decision-making power with key stakeholders.<sup>159</sup>
- Although all RRF plans have now been submitted, there is an opportunity to advocate for increased inclusion and consideration of REC/CECs in the REPowerEU chapters that MS must submit this year for additional funding. There is an explicit opening in the guidelines to support policy reforms in risk mitigation for the deployment of local renewable energy capacity.
- There are upcoming opportunities to place attention on ECs in national Modernisation Funds deployment, as these are determined on a yearly basis. Draw on examples, like Hungary and Czechia, where they are targeting programmes to developing ECs. The call for proposals in Hungary were expected to launch in July 2022.<sup>160</sup>

### 5.2.1 Recommendations for policy-makers at EU, national and regional/local levels

Experts<sup>161</sup> remind us that financing schemes cannot alone provide the support needed for an EC movement to thrive. A level playing field, access to information, tailor-made solutions, opportunities to collaborate, the inclusion of efficiency and poverty dimensions – this is where enabling frameworks under the RED and IEMD are crucial components to driving an overall system that is beneficial for EC development, and based on the specific socio-cultural and political contexts in each Member States.

In keeping with this sentiment, our recommendations to policy-makers are in line with those made by experts, researchers and practitioners already:<sup>162</sup>

- **For policy-makers at EU level:**
  - Demand that Member States fulfil their legal obligations in transposing the REDII and IEMD directives, at the risk of incurring fines and/or the initiation of infringement proceedings, as per EU law.<sup>163</sup> Over a year after the transposition deadline has passed, most Member States have not established supportive definitions of RECs and CECs nor created a stable regulatory enabling framework for RECs and CECs as provided by the REDII and IEMD directives, including the provision of financial tools and information.
  - Explore the possible avenues to create incentives for banks and financial institutions to finance ECs. Measures may include subsidising the interest rate, decreasing reserve requirements for green and regular loans for ECs.
  - Develop policies to increase the financial literacy of EU citizens with the aim to stimulate informed decision-making and de-risking investments.

- Further develop safeguards for alternative funding instruments, specially those that generally lack due diligence requirements (such as crowdfunding).
- **For policy-makers at national level:**
  - Transpose the REDII and IEMD directives. This means establishing supporting definitions of REC/CEC and putting in place an enabling legal framework that promotes and facilitates the development of CECs/RECs and self-consumers in their national context. In the case of the REDII transposition, this also needs to be done following the assessment of REC needs in each Member State.<sup>164</sup> In all cases, transposition should be carried out with appropriate consideration of the cultural and national context and in consultation with groups who are trying to establish projects already.<sup>165</sup>
  - Tailor financial tools to the specific needs of the EC movement and/or aspirations in your country. For example, where smaller, locally relevant community ownership is to be encouraged, implement the types of subsidies that can help these actors with start-up costs e.g., special tariffs for ECs, loan-to-grant models.
  - Implement policies that address unbalanced incentives with traditional energy suppliers, e.g., REC-specific auctions in Ireland, France's *'bonus participatif'* for energy project involving local citizens.
  - Remember that ECs are built by people and governments that want to bring wider community value. Models like the revolving fund may provide a financial model which can fund ECs and also be re-invested back into the EC movement or other community projects.
  - Raise awareness amongst banks and institutional investors about the concept of energy communities and strive to create a friendlier business environment that promotes private investment for REC projects (e.g., extending maturities and reducing tax on low-carbon energy projects<sup>166</sup>).
- **For policy-makers at local level:**
  - Create awareness and build community and municipal buy-in for EC projects, especially where support schemes already exist (e.g., for renewable energy and energy efficiency initiatives).<sup>167</sup>
  - Explore and seize co-funding opportunities with public-funding and commercial or ethical banks.

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# Profundo

Research & advice

Radarweg 505  
1043 NZ Amsterdam  
The Netherlands  
+31-20-8208320  
[profundo@profundo.nl](mailto:profundo@profundo.nl)  
[www.profundo.nl](http://www.profundo.nl)