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SUMMARY

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ABOUT COME RES

COME RES - Community Energy for the uptake of renewables in the electricity sector. Connecting long-term visions with short-term actions aims at facilitating the market uptake of renewable energy sources (RES) in the electricity sector. Specifically, the project focuses on advancing renewable energy communities (RECs) as per the EU's recast Renewable Energy Directive (RED II). COME RES takes a multi- and transdisciplinary approach to support the development of RECs in nine European countries; Belgium, Germany, Italy, Latvia, the Netherlands, Norway, Poland, Portugal, and Spain.

COME RES covers diverse socio-technical systems including community PV, wind (onshore), storage and integrated community solutions, investigated in nine European countries. The project has a specific focus on a number of target regions in these countries, where community energy has the potential to be further developed and model regions where community energy is in a more advanced stage of development. COME RES analyses political, administrative, legal, socioeconomic, spatial and environmental characteristics, and the reasons for the slow deployment of RECs in selected target regions. COME RES synchronises project activities with the transposition and implementation of the Clean Energy Package and its provisions for RECs in policy labs. Policy lessons with validity across Europe will be drawn and recommendations proposed.

ABSTRACT

This deliverable gathers the main country-specific and cross-country policy lessons and recommendations of the project. It addresses politicians, policy makers, policy advisory organisations at various governance levels as well as community energy stakeholders across Europe.

First, the report derives policy lessons and recommendations from the comparative assessment of enabling frameworks for renewable energy communities (RECs) carried out in the COME RES project. The assessment compared the progress in transposing and implementing the definitions, rights and enabling frameworks for RECs contained in the recast Renewable Energy Directive (RED II) in the nine countries represented in COME RES, namely Belgium (Flanders), Germany, Italy, Latvia, the Netherlands, Norway, Poland, Portugal, and Spain.

Moreover, the deliverable is building upon and complementing previous work including key outcomes of the stakeholder dialogues, consultations and policy labs carried out within the country desks. Furthermore, it compiles key policy lessons and recommendations derived from the in-depth assessments of barriers and drivers for RECs in selected target regions of COME RES, of the best practice transfer activities and the work dedicated to the formulation of regional action plan proposals.

Methodologically, the report is based on complementary desk research, in particular the analysis of legal documents and secondary literature. It also integrates observations and findings of the country desk events in the COME RES partner countries.

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Executive Summary

This policy report provides country-specific and cross-country policy lessons and recommendations of the COME RES project. It addresses elected politicians, policy makers in a broader sense, policy advisory organisations as well as community energy stakeholders across Europe. The report also includes policy recommendations for policy makers at European level including the European Commission.

The primary bases for this document are the policy lessons and recommendations derived from the comparative assessment of enabling frameworks for renewable energy communities (RECs) carried out by the COME RES consortium and published online in August 2022. This policy report however also considers subsequent policy developments. The assessment compared the progress of implementing the definitions, rights and enabling frameworks for RECs in the nine COME RES partner countries as required by the revised Renewable Energy Directive (RED II). Moreover, the report builds upon and complements other policy related work of COME RES including the outcomes of the stakeholder dialogues, consultations and policy labs carried out within the COME RES country desks. Key lessons and recommendations are derived from the in-depth assessments of barriers and drivers for RECs in selected COME RES target regions, the best practice transfer activities and the work dedicated to the formulation of regional action plan proposals. All these project activities provided food for reflection and many important indications for drawing policy lessons.

The creation of an effective enabling framework for RECs can be regarded as a multi-level governance task as it requires commitment and actions of policy makers at all levels of government. Therefore, this report compiles lessons and recommendations for the individual countries addressing the national, regional and local/municipal levels. Additionally, recommendations with overarching character and validity across the borders are formulated.

Most EU countries represented in COME RES have made average to good progress in transposing the **definitions, rights and possible market activities** of RECs, although in several cases governments used a literal transposition (“copy and paste” approach). None of the nine countries transposed the respective provisions into national law fully and timely. In most countries, there is still a need of secondary/accompanying legislation further specifying indefinite legal terms like effective control, proximity, or autonomy and other legal and technical details (e.g., related to energy sharing).

So far, none of the nine countries has developed an **enabling framework** for RECs that fully or largely complies with the minimum requirements listed in RED II. In most countries, these enabling frameworks are still underdeveloped and fragmentary. **Critical bottlenecks** include **technical restrictions** for RECs, lengthy and burdensome **permitting/licensing procedures**, **lack of information**, and **lack of start-up financing and risk capital**. In most cases, proper **regulatory frameworks** and **incentives for energy sharing** are lacking. There is also an urgent need for effective measures to facilitate cooperation of RECs with Distribution System Operators (DSOs) in order to enable energy sharing. Moreover, there is a **need for intermediaries, advisory services and one-stop-shops** providing information, administrative, legal, organisational and financial support to RECs. Also measures ensuring

that RECs are considered in **spatial and urban planning** are largely lacking. The directive states that Member States (MS) must ensure that RECs are accessible to all consumers, including low-income or vulnerable households and tools to facilitate access to finance and information are available for low-income and vulnerable households. But it is up to MS to define what are low-income and vulnerable households. For this reason, dedicated activities are necessary to facilitate participation of those groups.

Only a few COME RES partner countries, like Germany or Spain, take the **specificities of RECs into account when designing support schemes for RES**. Support schemes and economic incentives specifically targeting RECs are mostly lacking or still under preparation. However, there are several exceptions, and we identified a number of promising policies and measures which might provide orientation for other COME RES countries and EU Member States. These include economic incentives for RECs including premium tariffs for shared energy in Italy or community energy funds providing start up financing for RECs in the Netherlands and Germany.

Municipalities have a key role to play to support the development of RECs and should be empowered by national and regional governments to effectively fill in this role. As potential initiators, investors and members of a REC, they are encouraged to “**lead by example**” and create trust in and legitimacy for energy community initiatives. They may support RECs by **providing access to financing tools**. They may act as **facilitators** and **promote networking** between relevant actors or disseminate good practices of community energy initiatives. They may foster the development of energy communities through their **public procurement schemes** (e.g., via the introduction of **social criteria** when purchasing electricity/heat). In some countries and regions, they have important functions in the field of **spatial planning** (designation of areas dedicated for the use of RES) and/or **permitting** of RES projects.

Below we briefly summarise key lessons and recommendations for each of the nine COME RES partner countries.

In **Belgium (Flanders)**, the **transposition** of REC definition, rights, obligations and possible activities can be regarded as **quite advanced**. Several principles like autonomy or proximity are not elaborated in detail and **require further specifications**. Compared to most other COME RES countries, Flanders has made progress in establishing provisions for energy sharing. However, the enabling framework for RECs is still weak and fragmentary. Access to information and financing as well as the lack of cost-reflective network charges based on a transparent cost-benefit analysis represent particularly important transposition gaps. Network charges should be based on a cost-benefit analysis, so that cost advantages can be allocated if and where energy communities can offer advantages to the grid. Furthermore, there is a need to establish one-stop-shops providing information, administrative and financial support to local RECs. Access for vulnerable and low-income households should be facilitated. Support schemes and economic incentives specifically targeting RECs are underdeveloped. Regulations and financial support mechanisms need to be adapted to consider the specific characteristics of RECs, as they often develop small-scale projects and aim to share the energy produced amongst their members (and not to maximize self-consumption). The enabling framework should support capacity building of local authorities so local policy makers can take up a more active

role in the promotion and further development of RECs. In the meantime, the Flemish government, regulator and distribution grid operator are undertaking steps to implement the regulatory framework and further develop the enabling framework for energy sharing and RECs in Flanders by e.g., launching a cost-benefit analysis on grid tariffs, facilitating the access to information and tools on energy sharing (through the existing Federation of Renewable Energy Cooperatives, REScoop.Vlaanderen), operationalizing an IT system that enables energy sharing and setting up a call for tenders specifically for energy communities and energy sharing in apartment buildings.

In **Germany**, the **full transposition** of the provisions of RED II for collective self-consumption schemes and RECs is **still pending** although starting from 2022 progress has been made under the new Federal government. The legal definition of 'citizen energy company' which exists since 2017 has been amended in July 2022 to comply with the provisions of RED II for RECs. The definition considers and specifies the principles of effective control, proximity, and autonomy, but has still a rather narrow scope of application, which is **limited to electricity generation based on wind energy and PV**. 'Open' and 'voluntary' participation have not been explicitly transposed into national legislation. In the annotations to the amended Renewable Energy Sources Act, the 'primary purpose' has been mentioned referring to RED II, but without any further specifications. Rights, duties and possible market activities of RECs have not been explicitly laid down, although in practice energy communities are engaged in various activities including electricity storage, consumption, aggregation, sales or even operation of distribution grids. Collective self-consumption and energy sharing represent particularly important transposition gaps. In 2022, the Federal government decided to exempt wind and solar energy projects of citizen energy companies below certain capacity thresholds from the obligation to participate in the auctions for financial support. Furthermore, access of RECs to risk capital and start up financing has been improved. Inspired by the example of the federal state Schleswig-Holstein, the Federal government has recently set up a dedicated support programme for wind energy projects of citizen energy companies. Although the government has also taken several measures to streamline the complex and lengthy project planning and permitting procedures in cooperation with the state governments (Länder), important elements of the enabling framework for RECs as defined by RED II are still missing. These include provisions that facilitate cooperation between RECs and DSOs to enable energy sharing. Moreover, the German partners see a need for information, advice and capacity building. The Federal government ought to introduce a regulatory framework for collective self-consumption and energy sharing, facilitate their practical implementation, continue to reduce the administrative barriers in spatial planning and permitting as well as to extend the support programme for citizen energy companies to also include other RES technologies. Moreover, the government should accelerate the roll-out of smart meters and the digitalisation of administrative procedures.

In **Italy**, the last few years have witnessed a decisive evolution in the development of a national and regional framework for RECs. The **enabling framework for RECs** can be considered to be among the **most advanced ones in the EU**, also thanks to an **early transposition of the RED II**. **Regarding the transposition**, a decisive step was the definition of RECs and of the criteria relating to openness, autonomy and effective control. RECs are legal entities under private law that allow citizens, businesses, cooperatives, entities, administrations, third sector entities, religious institutes, schools and universities

to come together to self-produce, and share electricity and thermal energy produced by plants powered by renewable sources, according to rules established among the members of the community itself. Italy has initiated a number of support measures and designed generous incentives. However, the pace of development of the RECs is not entirely satisfactory as they are still failing to spread as they should. Only a few RECs are operating and receive public support provided by the Energy Services Manager (Gestore dei Servizi Energetici, GSE). The list of the dysfunctions is long and includes red tape, delays in granting financial support and issuing implementation rules, delays in registrations, combined with difficulties in obtaining the information needed to identify the scope of RECs, and also onerous estimated costs for grid connection. Many energy communities are still waiting for the regulatory process to be completed, due to postponements in implementing decrees and activating new rules that open up concrete development opportunities.

However, the advantages from the diffusion of RECs are already evident in terms of various environmental, economic and social benefits including energy bill savings coupled with economic incentives rewarding shared energy, creation of new jobs, or mitigation of energy poverty. There also exist coordination mechanisms at national and regional level concerning both legislation and incentives to support RECs.

Policy-makers are encouraged to remove the current restrictions RECs are facing in terms of capacity limits and grid connection requirements. They should ensure the conditions for a non-discriminating flow of information and real cooperation between RECs and DSOs. More attention needs to be paid to the administrative procedures to overcome the uncertainty caused by regulatory transitions. The deployment of RECs in marginal and peripheral areas contributing to overcoming energy poverty, depopulation and supporting small local economies, as stated in the National Recovery and Resilience Plan should be promoted.

In **Latvia**, **general legislation transposing the RED II provisions** for RECs has been **adopted in July 2022**. However, **full transposition is still pending**. Amendments to the Law on Energy define 'energy community' as a single concept under which RECs and citizen energy communities (CECs) are subsumed. A particular energy community can fulfil either the conditions of a REC, a CEC or both. Amendments to the Electricity Market Law adopted in July 2022 introduced the concept of electricity sharing for collective self-consumption schemes and energy communities while RECs are introduced as a new electricity market actor, with the same rights and obligations as other market actors. Yet, government regulations further specifying the terms 'proximity', 'autonomy' and 'effective control' as well as the registration requirements for RECs, electricity sharing rules, etc are still pending. Their adoption is planned in 2023. **RECs are still in an embryonic stage** of development and adoption of the governmental regulations complementing the general legal framework is crucial for the further development of RECs in Latvia.

To ensure the coherence of legislation addressing municipalities and legislation regulating RECs, removal of restrictions that might limit engagement of municipalities in RECs is essential. On the other hand, a very large spectrum of eligible legal forms of REC, practically without any restrictions, facilitates the development of suitable business models for RECs.

More than 90% respondents of the COME RES online stakeholder consultation in Latvia considered electricity generation as the most promising field of activity for RECs. Thus, facilitating REC activities in the electricity sector should be in the focus of any political strategy. Proper electricity sharing rules as well as the introduction of differentiated power grid service tariffs, considering the extent to which the public grid (low, medium and high voltage) is used by RECs, thus resulting in a specific tariff regime for electricity sharing, are important and urgent tasks for the government.

Access of RECs to risk capital and investment support ought to be improved. In principle, there exist several potential financial support programmes, where dedicated support for RECs might be integrated, however, so far, no provisions have been developed in detail. Financial support schemes should be adopted and put into operation as soon as possible. Moreover, there is an urgent need for information, advice and capacity building.

In the Netherlands, legislation transposing the RED II and its provisions for RECs has been adopted in July 2022 in a revision of the Dutch Energy Law, however, **full transposition is still pending**. The new Energy Law regulates consumer protection, offers grid operators more possibilities for tackling the congested electricity grid, provides households and businesses with more possibilities for active participation in the energy market and ensures safe and controlled data exchange between grid operators, market players and energy consumers. Next to this, it also defines the 'energy community' (merging the EU definitions of REC and CEC into a single concept) as a new legal entity that can be active on energy markets. In the new legislation, energy communities are introduced as new market actors, with the same rights and obligations as other market parties. They are treated on equal footing. A REC is defined as a specific kind of energy community that can include in its statutes the requirement that only natural persons, local authorities or SMEs can become shareholders; with effective control belonging to those shareholders located in the proximity of the renewable energy project. Specifications of key terms such as 'effective control', 'proximity' etc. will be the subject of further implementing acts. Organisations representing the interests of energy communities (e.g., Energie Samen, the umbrella organisation of Dutch energy cooperatives) call for an enabling regulatory framework for energy sharing within energy communities, but this framework is still under development.

Although full transposition of the REC definition is pending, the Netherlands already has a **comparatively advanced enabling framework for energy communities**. A potential assessment study has been commissioned in 2019 and there is specific operational support (feed-in premiums) targeting energy cooperatives and associations of homeowners. The enabling framework is mainly developed at the level of the 'RES regions' (established in 2019), however, with only poor coordination between the regions. For instance, the provinces of South Holland, Utrecht, Limburg and Drenthe have established a special 'development fund' which can be regarded as a promising showcase for other provincial governments. This fund provides start-up finance and risk capital to finance upfront costs which would be later repaid if projects prove successful. Furthermore, even though the Dutch Climate Agreement of 2019 established the non-binding goal of 50% local ownership of renewable energy on land by 2030, many municipalities (especially the smaller ones) lack the necessary information or resources to engage with local energy communities.

At the national level, energy sharing within energy communities should be defined and regulated. National legislation should also consider supporting energy communities that help with congestion management through 'smart' energy sharing (i.e., by balancing electricity demand and supply). Such smart energy sharing projects could for instance be given priority access to the grid, or made eligible under the so called SDE++ subsidy, and incentives for participating in such projects could be offered through a reduction of VAT. With regard to support for capacity building and funding, providing loans for necessary planning and development activities should be considered, which would later be repaid if the REC project proves successful (cf. the 'development fund' mentioned above). Other provincial governments could set up similar funds. Depending on their financial capacities they could do this on their own or in partnership with other fund managers (e.g., umbrella organisations of RECs). RES regions could set up 'collaboration agreements' with a coalition of RECs active in their region for supporting their regional energy strategy. Such an agreement would set out which tasks will be delegated to the coalition of energy communities, including the fees for carrying out these tasks. In this way, the regional energy strategy contributes to the further professionalisation of the energy community movement. Finally, municipalities could also play a more active role in stimulating RECs, e.g., by subsidising the start-up of local RECs, making available public spaces for renewable energy projects (for example, on the rooftops of municipal buildings or on municipal land) or by making the lease of municipal land or rooftops conditional on the developers' adherence to a set of minimal guidelines for citizen participation.

In **Norway**, the concept of RECs is rather new and is not generally understood as limited to the definitions in the RED II (concerning e.g., who are entitled members/shareholders, rules on proximity and social, environmental or economic benefits). Furthermore, Norway is not an EU member, but part of the European Economic Area (EEA), so **that the process of implementing RED II is not following a predefined time schedule and is not given high policy attention** as of yet. RECs have not been legally defined and an enabling framework for RECs or energy communities in general is underdeveloped. The main development on the policy side is the proposed extension of the 'plus-customer scheme' that grants households rights as prosumers. If implemented, this will facilitate joint electricity production and consumption within the same property and thus open up for condominiums to become energy communities. However, **the new regulations planned** to be in place by the end of 2022 are **still pending**. This will likely enable low-income households as part of condominiums to reduce their energy costs and raise the value of their homes. In addition, if combined with storage solutions, this may reduce peak demands related to the vast increase of electric vehicles for private transport in urban areas.

Based on the COME RES findings, the main barriers for RECs are regulations that limit sharing and sale of self-produced electricity, as well as lack of political focus on the national and local government level. The main measures emphasised by the stakeholders in the COME RES consultation survey was the reduction of regulatory and bureaucratic burdens, access to systematic learning from pilot projects, support for capacity development from national or local government. Support schemes were mentioned as a fourth important measure. Existing financial support schemes have not been designed with energy communities in mind, and do not consider the specificities of RECs. A change towards more

decentralised supply will require that important actors such as local authorities and grid companies take on new roles and need new resources for such tasks. At present there is no formal process for providing resources, incentives or guidelines for this to happen.

The present energy crisis with unprecedented high electricity costs in Norway (Southern and Western part) have shown that local energy models are becoming increasingly relevant, but there is **uncertainty in terms of framework conditions and how to best integrate** such models into the existing power system which is based on national cost-efficiency and public ownership. Furthermore, the climatic conditions require integrated and hybrid decentralised systems that are complex and call for high investment costs. Interest in community-based energy solutions in Norway are not mainly driven by potential REC members/owners or grassroots actors. The involvement of vulnerable households and the implications of community energy for the mitigation of energy poverty to enable a just and inclusive energy transition has not been given policy attention. In order to promote RECs and the related social, economic and environmental benefits to local communities there is a need to specifically provide enabling frameworks for grassroots actors as well as define rights and responsibilities for relevant institutions (e.g., RECs, grid companies, local authorities), as well as necessary support to take on new roles and responsibilities.

In **Poland, the provisions for RECs contained in the RED II have not been transposed yet.** However, the Polish Law on Renewable Energy Sources includes provisions for energy cooperatives and so called 'energy clusters', which to some extent reflect the idea of RECs. But an energy cluster is not a legal entity but based on a civil law contract. Energy clusters do not comply with the EU definition of RECs. For a proper transposition, it would be quite obvious to take the existing concept of 'energy cooperatives' as a basis. **Draft legislation** transposing elements of the RED II **does neither mention RECs nor energy cooperatives.** However, in 2022, collective self-consumption (CSC) schemes in multi-family buildings have been introduced, but to date no collective prosumer installations have been established.

Municipal authorities show generally **great interest in forming energy communities.** Existing barriers, the lack of attractive economic incentives and the continuously changing legal framework led to passivity among local communities, municipalities and civil society hampering their engagement in RECs and creation of respective business plans. Often these actors fear to lose the money invested.

It is of utmost importance to create an effective enabling framework for RECs as well as attractive support mechanisms, and, above all, attractive business models. This also requires urgent investments in the modernisation and development of transmission and distribution grids. Furthermore, there is a need to make the energy transition including the development of energy communities a priority goal of provincial development strategies. Local energy plans ought to be adjusted accordingly. Designing appropriate financing instruments for RECs is of utmost importance. Moreover, it is recommended to support the establishment of 'municipal energy officers' to promote the development of RECs and identify possibilities to cooperate with energy communities.

In **Portugal, the transposition of the legal framework for RECs is relatively advanced.** RECs are explicitly entitled to produce, consume, store and sell renewable energy. Energy sharing among

members is also allowed. Nonetheless, most of the provisions for RECs have been literally transposed from the RED II and some legal terms still remain unclear. Moreover, the **transposition of the enabling framework** for RECs is **still lagging**. The most relevant barriers refer to lack of information, poor access to financing and the burdensome and lengthy licensing procedures. While some concrete steps have been taken towards overcoming these barriers, namely through the simplification of procedures, the launch of a dedicated support scheme and the development of dedicated webpage and an illustrated guide to support the implementation of RECs, these are by no means sufficient. There is a need for the national government to further simplify the licensing procedures and guarantee a direct contact point with the licensing authorities, and to disclosure and disseminate information on ongoing pilot projects, in order to increase awareness and trust in the concept. Moreover, as local authorities are seen as a key enabler of RECs in Portugal, there is also a need to empower them for this role, with specialised training courses. The establishment of local one stop shops by local governments and other local entities (as energy agencies) could also mitigate the lack of information and capacity of citizens and SMEs.

In **Spain**, concrete steps for the **development of an enabling framework for RECs** have been taken within the timespan of the COME RES project. The definition of RECs was introduced in the regulatory framework, although it lacks concrete elaboration on what key elements of the definition imply (autonomy, effective control, voluntary participation, proximity). As such, stakeholders interested in developing **RECs continue to face regulatory uncertainty** and often resort to the legal framework for renewable collective self-consumption, which has been known to be limiting in certain conditions, given the grid capacity and distance limitations it establishes. Furthermore, there is no concrete delimitation of the types of legal entities that could be used to develop RECs, and no regulatory authority has been given powers to oversee the compliance with the definition of REC. Thus, the national government is encouraged to fully transpose the RED II and develop an elaborated normative framework, so that regulatory uncertainty for RECs is reduced. In parallel, regional governments ought to promote the further simplification of existing administrative procedures for collective self-consumption projects with power over 100 kW, adapting regional regulations to national resp. state regulations. On the other hand, specific support schemes covering different phases of REC development have been or are being developed, which constitutes a milestone for the creation of an enabling framework. To some extent, Spain can be seen as an example for the development of an integrated and holistic approach to support RECs. 100 million EUR will be mobilised to promote, support and develop RECs through the Recovery, Transformation and Resilience Plan. Moreover, unlike most of the countries examined, the **government has taken important steps to comply with the RED II requirement for Member States to develop a cost-benefit analysis for distributed generation**. Similarly, the Spanish government has also taken steps to consider the specificities of RECs in the design of its renewable electricity auction system. As such, we consider that other Member States could benefit from using the Spanish support schemes as a benchmark for developing their own.

The **European Commission** should follow up closely the transposition and implementation of the provisions for RECs in the different countries and provide guidance to the Member States, clarifying some elements of the EU provisions, such as the requirement of proximity, the autonomy and effective control in the EU definitions, while also some references to RECs and non-price criteria in tenders in the

state aid legislation. Furthermore, the Commission is encouraged to make the promotion of energy communities through public procurement a key part of the activities organised by the Green Public Procurement (GPP) Helpdesk especially in relation to the GPP Criteria for Electricity. In the context of the current energy crisis and the upcoming Electricity Market Design revision, the Commission needs to acknowledge and support local ownership of renewable energy production as a matter of securing energy supply, making sure that RECs are part of the solution.

1. Background, purpose and structure of the report

In its 'Clean Energy for all Europeans' package, particularly the recast Renewable Energy Directive (2018/2001/EU) (RED II)¹, the EU acknowledged the role of renewable energy communities (RECs) and provided a legal framework for those entities covering a definition, rights and obligations, as well as the general principles of an enabling framework for RECs. Member States were required to transpose the respective provisions by 30 June 2021 into national law. Moreover, Member States had to assess barriers and potentials of RECs, to provide an enabling framework to promote and facilitate the development of RECs and to take into account the specificities of RECs when designing support schemes.

The current energy and climate crises illustrate that local, decentralised approaches to generate and consume energy are essential for creating a secure, resilient and affordable energy supply in the interest of Europe's citizens.² Through local ownership, collective self-consumption and energy sharing, community energy initiatives including RECs can play a key role to achieve energy security, decarbonisation and climate change mitigation, while reducing people's energy costs. They can significantly contribute to hedging Europe's citizens against the volatility of energy markets. Further, they can help to enhance grid stability and reduce the need for grid extension. Finally, RECs can increase local acceptance of renewable energy infrastructure and broad-based value creation. They are potential anchors of stability, social cohesion and democracy.

COME RES focused on advancing the development of RECs as defined by RED II. The project took a multi- and transdisciplinary approach to support the development of RECs in nine European countries; namely Belgium (Flanders), Germany, Italy, Latvia, the Netherlands, Norway, Poland, Portugal, and Spain. In 30 months of intense work, COME RES analysed barriers, drivers, potentials, good practice examples, business models and transfer possibilities as well as policy development with the ultimate goal to facilitate the development of RECs in the electricity sector and beyond. The project also aimed to support policymaking in the nine partner countries on the regional and national levels, both directly and indirectly. The consortium synchronised its activities with ongoing policy formulation processes, particularly the transposition of the EU legal framework and the development of an enabling framework for RECs. These project activities provided food for reflection and many important indications for drawing lessons for (energy) policy on different levels (from national to local) and to formulate policy recommendations.

¹ The RED II entered into force in December 2018 and provides a common framework for the promotion of energy from renewable energy sources (RES) in the EU. The directive established a new binding renewable energy target for the EU for 2030 of at least 32%. In order to help EU countries to deliver on this target, the directive introduced new measures for various sectors of the economy, particularly on heating and cooling and transport, where progress has been slower. It also includes new provisions to enable citizens to play an active role in the development of renewables by enabling renewable energy communities and self-consumption of renewable energy. Moreover, it established strengthened criteria to ensure sustainability of bioenergy. The RED II is a recast of the Directive 2009/28/EC (RED I).

² M. Umar, Y. Riaz, I. Yousaf (2022): Impact of Russian-Ukraine war on clean energy, conventional energy, and metal markets: Evidence from event study approach. In: Resources Policy 79, 102966, <https://doi.org/10.1016/j.resourpol.2022.102966>

This policy report gathers the main country-specific and cross-country policy lessons and recommendations for the nine COME RES partner countries. It addresses politicians, policy makers, policy advisory organisations at various government levels as well as community energy stakeholders across Europe.

The primary bases for this document are the policy lessons and recommendations derived from the comparative assessment of enabling frameworks for RECs published in August 2022.³ The assessment compared the progress of implementing the definitions, rights and enabling frameworks for RECs in the nine COME RES partner countries. The report also takes into account new policy developments that took place since the publication of the comparative assessment. Moreover, the deliverable builds upon and complements previous work including key outcomes of the stakeholder dialogues, consultations and policy labs carried out within the COME RES country desks. It also compiles key policy lessons and recommendations derived from the in-depth assessments of barriers and drivers for RECs in selected target regions⁴, the best practice transfer activities and the work dedicated to the formulation of regional action plan proposals.

The report is structured as follows: After brief explanations of the key concepts, definitions and methods, we briefly sketch the policy related work of COME RES. Furthermore, we present the general lessons learned from the comparative assessment of the enabling frameworks for RECs. By considering both the findings of the comparative assessment and of the stakeholder dialogues and consultations carried out within the country desks, and other policy related works, we then derive country-specific policy lessons and formulate recommendations addressing national, regional and local governments in each of the nine COME RES partner countries. Finally, we summarize cross-country recommendations and provide recommendations for policy at the European level.

³ M. Krug et al. (2022): Comparative Assessment of Enabling Frameworks for RECs and Support Scheme Designs. COME RES Deliverable D7.1, <https://come-res.eu/resource?uid=1356>

⁴ COME RES has a specific focus on a number of target regions in the partner countries, where community energy has the potential to be further developed and model regions where community energy is in a more advanced stage of development. These target regions include the Province of Limburg and West -Flanders (Belgium), Utrecht, North Brabant (both the Netherlands), Thuringia (Germany), Apulia (Italy), Latvia (entire country), Norway (entire country), Mazovia Province, Lesser Poland Province (both Poland), Norte Region (Portugal), Canary and Balearic Islands (Spain).

2. Key concepts, definitions and methods

This report follows the definitions of renewable energy communities (RECs), renewables self-consumers and jointly acting renewables self-consumers introduced by the recast of the Renewable Energy Directive (RED II) (see Table 1).

Table 1: Definitions from RED II

Term	Definition
Renewable energy community <i>RED II, Article 2(16)</i>	“A legal entity: (a) which, in accordance with the applicable national law, is based on open and voluntary participation, is autonomous, and is effectively controlled by shareholders or members that are located in the proximity of the renewable energy projects that are owned and developed by that legal entity; (b) the shareholders or members of which are natural persons, SMEs or local authorities, including municipalities; (c) the primary purpose of which is to provide environmental, economic or social community benefits for its shareholders or members or for the local areas where it operates, rather than financial profits”
Renewables self-consumer <i>RED II, Article 2(14)</i>	“A final customer operating within its premises located within confined boundaries or, where permitted by a Member State, within other premises, who generates renewable electricity for its own consumption, and who may store or sell self-generated renewable electricity, provided that, for a non-household renewables self-consumer, those activities do not constitute its primary commercial or professional activity”
Jointly acting renewables self-consumer <i>RED II, Article 2(15)</i>	“A group of at least two jointly acting renewables self-consumers in accordance with point 2(14) who are located in the same building or multi-apartment block.”

The term collective self-consumption (CSC) will be used as a synonym for jointly acting renewables self-consumers. The Tables 11-13 in the annex contain further concepts and definitions which are relevant for this report. They also include the definition of citizen energy communities (CECs) introduced by the Integrated Electricity Market Directive (2019/944/EU) (IEMD). RECs and CECs have many common characteristics, but also important differences. The focus of COME RES is on RECs. The authors are, however, well aware that there are other forms of community energy initiatives which do not necessarily comply with the definitions of RECs and CECs.

The report is based on the most relevant COME RES reports, the analysis of primary literature and legal documents as well as secondary literature. It also integrates observations and findings of the country desk events in the COME RES partner countries.

3. Policy related activities in COME RES

COME RES aimed to support policymaking in the nine partner countries, particularly at the regional and national levels, both directly and indirectly.

- Several project activities had a specific focus on **target regions** in the partner countries (see footnote 4). Selected **model regions** where energy communities are more developed served as a reference system. COME RES analysed the starting conditions of the target regions including the socio-economic, **political, administrative, legal** and environmental characteristics and the reasons for the slow deployment of RECs.⁵
- COME RES aimed to effectively synchronise project activities with the transposition of RED II provisions for RECs and the corresponding **policy formulation processes** in the partner countries. As the RED II explicitly asked Member States to carry out an assessment of the **existing barriers and potential of development** of RECs, the project consortium aspired to support these endeavours and provided an assessment of the **future potentials of RECs** in the COME RES target regions **by 2030**⁶ as well as of prevailing **barriers and drivers for RECs**.⁷ Although these activities focused mainly on the regional level, in some cases (e.g., Latvia) they helped to inform policy making at national level which even resulted in explicit references to COME RES in national legislation.
- COME RES examined good and best practice examples of RECs in the nine partner countries as well as the relevant success factors including policy related factors.⁸ Moreover, the consortium analysed financing instruments supporting the development of RECs in the nine partner countries.⁹
- As a horizontal activity, the **country desks** established in all COME RES countries served as a vehicle to engage in a continuous dialogue with community energy actors and stakeholders in the target and model regions, including national, regional and local associations, energy agencies, public authorities and last but not least with regional and local politicians and policy makers.¹⁰

⁵ K. Standal, S. Aakre, et al. (2021): Assessment report on technical, legal, institutional and policy conditions in the COME RES countries. COME RES Deliverable D2.1, <https://come-res.eu/resource?uid=1009>.

⁶ E. Laes, et al. (2021): Assessment report of potentials for RES community energy in the target regions. COME RES Deliverable D2.2, <https://come-res.eu/resource?uid=1152>.

⁷ K. Standal, S. Aakre, M. D. Leiren, et al. (2022): Synthesis report of case-studies on drivers and barriers in 5 selected target regions. COME RES Deliverable D2.3, <https://come-res.eu/resource?uid=1300>

⁸ P. Maleki-Dizaji, F. Rueda, et al. (2022): Synthesis Report based on in-depth assessment of 10 transferable best practices. COME RES Deliverable D5.3, <https://come-res.eu/resource?uid=1308>; P. Maleki-Dizaji, P. Nowakowski, I. Kudrenickis, F. Rueda et al. (2022): Good Practice Portfolio of Renewable Energy Communities.

COME RES Deliverable 5.2, <https://come-res.eu/resource?uid=1262>

⁹ D. Fouquet et al. (2022): Report on novel financing instruments for RECs. COME RES Deliverable 4.2; <https://come-res.eu/resource?uid=1309>

¹⁰ M.R. Di Nucci, V. Gatta, I. Azevedo, et al. (2022): Final Consolidated Summary Report of Desk Activities in the Target Regions. COME RES Deliverable D3.3, <https://come-res.eu/resource?uid=1383>

- One of the key activities undertaken in relation to the country desks was a **dedicated online stakeholder consultation/survey** which was carried out between May and June 2022. The survey covered all COME RES partner countries and target regions.¹¹
- Based on the performed analyses, stakeholder dialogues and dedicated consultations, project partners from Italy, Latvia, Portugal and Spain, prepared **action plan proposals** for the respective target regions in cooperation with key country desk stakeholders.¹²
- Extending the analysis of good practices, COME RES initiated **good/best practice transfer processes** between “learning regions” and “mentoring regions”, both domestically and between countries. In cooperation with mentoring experts, the project partners provided capacity development support and training to community energy actors and stakeholders from the “learning regions”, including policy makers and public authorities.¹³
- Besides **supporting policy development** at the level of the target and selected “learning regions”, COME RES aimed to aid policy making at the **national level**. On the one hand, COME RES partners monitored and assessed the RED II transposition processes, on the other hand they facilitated and informed those processes by creating **policy dialogues** and so-called **policy labs** within the country desks. The policy labs served as an interface between COME RES and policy formulation processes in the respective countries with the purpose to assist policy-making. They were usually designed as round tables involving elected politicians, policy makers in a broader sense and policy advisory organisations.
- Finally, several COME RES partners took part in **public consultations** both on regional and national level and developed **policy input papers** and **opinions** (e.g., IPE in the case of Latvia, ECORYS in Spain¹⁴). The Latvian partner IPE was even invited to join the respective sessions of the parliamentary commission that is responsible for transposition of the RED II and IEMD.
- The project’s findings have also implications for the European level. Therefore, COME RES organised a **policy roundtable** back-to-back to the **European Sustainable Energy Week** involving policy makers and stakeholders from the EU level discussing the findings of the comparative assessment of enabling frameworks and support scheme designs.
- Policy related findings and recommendations of COME RES were presented at the COME RES final conference in Brussels on 31 January 2023. Moreover, COME RES partners ICLEI and REScoop.eu participated in public consultations related to proposed legislation on the European level. REScoop.eu provided a response to the permitting guidance and solar strategy consultations published by the Commission in the context of the work on the REPowerEU

¹¹ K. Standal, N. Ytreberg, et al. (2022): Consultation series of the eight country desks. Summary Report. COME RES Deliverable D3.4, <https://come-res.eu/resource?uid=1360>

¹² E. Meynaerts, E. Laes, et al. (2022): Four proposals for action plans to enhance the development of RECs in target regions, COME RES Deliverable D3.5, <https://come-res.eu/resource?uid=1374>

¹³ R. de Bont et al. (2022): Four Best Practice Transfer Roadmaps for learning regions. COME RES Deliverable D6.3, <https://come-res.eu/resource?uid=1359>

¹⁴ Expression of Interest regarding energy communities in the framework of the Recovery, Transformation and Resilience Plan in Spain.

Plan.¹⁵ Moreover, REScoop.eu responded to a consultation opened by the Commission focusing on the revision of its state aid legislation and, specifically, the General Block Exemption Regulation¹⁶ and the CEEAG.¹⁷ Recently, REScoop.eu responded to the consultation process concerning a reform of the electricity market design in the EU and provided a policy paper referring to COME RES.¹⁸ ICLEI participated in an EU consultation process, published a position paper on Fit for 55¹⁹ and submitted three positions, which provide feedback on the Energy Efficiency Directive²⁰; the EU Renewable Energy Rules²¹, and the Social Climate Fund.

4. Transposition of RED II and development of enabling frameworks for RECs – general lessons learned

By June 2021, the EU Member States had to transpose the provisions for RECs laid down in RED II. The COME RES consortium facilitated and informed the transposition process in the partner countries through the activities of the country desks and policy labs and carried out a comparative assessment of the transposition performance in the nine partner countries.²² This assessment covered:

- Definitions, rights and possible market activities of RECs
- Key elements of an enabling framework for RECs
- Consideration of RECs in support scheme designs

The findings of the assessment illustrate that progress and performance of transposition varies considerably among the analysed nine COME RES partner countries. Governments in most of the countries under scrutiny concentrated on the transposition of definitions, rights and possible market activities. However, the development of an effective enabling framework and consideration of RECs in support scheme designs received less political attention so far.

Most EU countries represented in COME RES have made good progress in transposing the **definitions, rights and possible market activities** of RECs although in many cases, governments used a “copy and paste” approach. None of the countries transposed the respective provisions fully and timely. To

¹⁵ The REScoop.eu response on the permitting guidance consultation can be found here <https://www.rescoop.eu/toolbox/consultation-on-permitting-guidance-for-renewable-energy-projects-rescoop-eus-response> while the response on the EU solar strategy consultation can be found here <https://www.rescoop.eu/toolbox/consultation-on-the-eu-solar-strategy-rescoop-eu-energy-citiess-common-response>

¹⁶ The response can be found here: <https://www.rescoop.eu/toolbox/the-gber-establishing-a-supportive-state-aid-framework-for-renewable-energy-communities>

¹⁷ The response can be found here: <https://www.rescoop.eu/toolbox/renewable-energy-communities-why-they-deserve-support-how-the-guidelines-on-state-aid-for-climate-environmental-protection-and-energy-can-help>

¹⁸ The position paper can be found here <https://www.rescoop.eu/toolbox/electricity-market-design-consultation-response-position-paper>

¹⁹ The position can be found here <https://iclei-europe.org/news/?c=search&uid=RK71wSGB>

²⁰ The response can be found here <https://iclei-europe.org/publications-tools/?c=search&uid=Ac51hg8C>

²¹ The response can be found here: <https://iclei-europe.org/publications-tools/?c=search&uid=hKCGznD>

²² Krug et al. (2022), footnote 3.

date, **Flanders** and **Italy** have made the most progress in transposing the definitions, rights and possible market activities of RECs.

One of the key **market activities** for RECs is **energy sharing**. Among the countries represented in COME RES, **Flanders** and **Italy** can be regarded as frontrunners in terms of transposing energy sharing regulation. **Flanders** has chosen a phased roll-out, starting with collective self-consumption on the building level followed by a peer-to-peer trading and energy sharing between members of a REC. Three pilot projects are currently implemented. **Italy** provides both a regulatory framework and economic incentives for jointly acting self-consumers and energy shared within RECs.

Formal compliance with the definitions for RECs laid down in the RED II and literal transposition of the key principles and criteria are, however, not sufficient to effectively promote and facilitate the development of RECs. The RED II contains many indefinite legal concepts that have to be specified and further elaborated on what they mean at the national level. These affect membership and governance aspects, spatial and system-related boundaries, but also technical parameters, activities and integration into energy markets. Depending on how governments interpret and specify these indefinite legal terms, e.g., how narrowly proximity is defined, the national provisions for RECs might turn out as a barrier or enabler.

The necessary creation of an effective **enabling framework to promote and facilitate the development of RECs** requires fine-tuning of the existing energy governance and physical infrastructure to accommodate RECs, especially in relation to incentives, subsidies, and access to energy markets. So far, none of the nine countries has developed an **enabling framework** that would fully or largely comply with the minimum requirements listed in RED II, Art. 22(4). In most countries, these enabling frameworks are still underdeveloped and fragmentary. Among the countries represented in COME RES, **the Netherlands, Italy** and to a certain extent **Spain** appear to be the most advanced countries in this respect.

In several countries, RECs face relatively strict geographical boundaries or technical limitations. In other countries (e.g., **Germany, Italy, Portugal, Spain**), the complexity of administrative procedures including burdensome and lengthy permitting and licensing processes represent a major barrier for RECs and other market actors. Some governments, such as in **Germany** or **Italy** have started recently to simplify and accelerate administrative procedures and reduce red tape but there is still a long way to go. Further critical bottlenecks include a lack of measures to facilitate **cooperation of RECs with Distribution System Operators (DSOs)**.

Legal/technical support and financial assistance are essential ingredients of any strategy supporting the development of RECs. Access to financing seems to be a key problem in several countries such as **Latvia** and **Portugal**. Also in other countries, despite existing investment and/or operational support, there is often a lack of start-up financing and risk capital.

However, our findings illustrate that novel financing instruments like revolving funds are increasingly being set up to overcome this barrier (e.g., in **Germany**, and the **Netherlands**). In most of the countries analysed, dedicated support schemes addressing energy communities have been lacking so far.

Exceptions could be found in **Germany, Italy** and the **Netherlands**. In **Italy, Poland, Portugal** and **Spain**, the **Recovery and Resilience Plans** which aim to overcome the economic consequences of the COVID-19 pandemic, incorporate financial support for RECs as an integral element with specific rules and funding streams. **Spain** provides a showcase for an integrated support approach, tailored to the different phases of REC development (pre-investment support, investment support, operational support).

Digitalisation is an important enabler for the development of RECs and CECs and their relevant business models. Several COME RES countries are already quite advanced regarding smart meter deployment (e.g., **Belgium (Flanders), Italy, the Netherlands, Spain**)²³ and thus can count on favourable infrastructural framework conditions to facilitate additional market activities involving citizens and communities (e.g., peer-to-peer trade, energy sharing), whereas other countries are considerably lagging behind in this field (e.g., Germany).

In some of the COME RES partner countries like **Germany, Italy**, the **Netherlands** and **Spain** promising support policies and measures have been developed at the sub-national levels. In **Italy**, the regions are likely to play a pivotal role in the development of new RECs and offer various forms of economic incentives, such as grants, but also fiscal incentives. In the deployment of RECs, regions bring standardisation to the scale of individual territories. At present, 13 regions have already enacted legislation on community energy matters. RECs are also considered in the Cohesion Policy and the respective Partnership Agreement between the European Commission and Italy where the need for the “[...] creation of Energy Communities is indicated, for the expected environmental, economic and social benefits at the local level.”²⁴ For energy efficiency and the development of RES, priority is given to interventions carried out through public-private partnerships, energy performance contracts involving ESCOs and/or using financial instruments. This will increase the financial resources for the regions from the Structural Funds. In **Germany**, some federal state governments have set up or are planning measures to enhance community energy through citizen energy funds (e.g., Schleswig-Holstein, Thuringia, North Rhine-Westphalia) or provide support for networking platforms for energy cooperatives (e.g., Rhineland-Palatinate). Additionally, subnational measures like the citizen energy fund developed in the state of Schleswig-Holstein have even inspired the Federal government to adopt similar measures for the national level. Besides the national and regional governments, municipalities play an important role as initiators, members, promoters, facilitators and enablers of RECs.²⁵

There is an overall trend in Europe, including the nine countries analysed in COME RES, towards **remuneration of electricity from RES facilities through auctioning schemes and competitive bidding** in which only those projects with lowest need of support will be awarded a market premium. Empirical evidence suggests that auctioning schemes considerably increase the risks for all market

²³ See for instance <https://www.tripica.com/blog/smart-meter-deployment-the-impact-on-eu-households>.

²⁴ See https://commission.europa.eu/publications/partnership-agreement-italy-2021-2027_en

²⁵ See also A. Hinsch, C. Rothballer, L. Russell (2022): COME RES Factsheet 2: Municipalities and renewable energy communities – a perfect match. <https://come-res.eu/resource?uid=1291>

actors, but particularly for community energy and other small actors, having prohibitive effects.²⁶ Therefore, the RED II requires Member States to consider the specificities of RECs when designing support schemes. Several years ago, **Germany** introduced certain pricing privileges for energy communities under the auction system which however turned out to be ineffective. The current Federal government decided to exempt wind and solar projects by citizens' energy companies from the obligation to participate in auctions in order to enable a less bureaucratic implementation, strengthen the diversity of actors and local acceptance. In **Spain**, special bidding categories have been created under the auction scheme exclusively addressing “citizens-led, distributed PV generation projects” which fulfil certain eligibility criteria. Furthermore, in Spain there have been established general pre-qualification criteria for all market actors that participate in auctions, considering citizen participation.

Several countries (**the Netherlands, Poland**) or regions (**Flanders**) have established quantitative targets for local ownership or the development of community energy initiatives. In **Italy** some regional administrations proposed targets for the establishment of RECs. On the one hand, such targets indicate political commitment, on the other hand, they can guide the development of enabling frameworks. Clearly defined targets can help to set up a monitoring system to assess the progress made. Moreover, a minimal degree of regulatory oversight, control and monitoring is essential to ensure compliance with the definitions.

5. Country-specific policy lessons and recommendations

5.1. Belgium (Flanders)

5.1.1. Key policy lessons from COME RES

In **Flanders**, the transposition of REC definition, rights, obligations and activities can be regarded as quite advanced. Several principles like autonomy or proximity are not elaborated in detail and require further specifications. Compared to most other COME RES countries, Flanders has made progress in establishing provisions for energy sharing. However, the enabling framework for RECs is still weak and fragmentary. Access to information and financing as well as the lack of a cost-reflective network charges based on a transparent cost-benefit analysis represent particularly important transposition gaps. Network charges should be based on a cost-benefit analysis, so that cost advantages can be allocated if and where energy communities can offer advantages to the grid. Furthermore, there is an expressed need to establish one stop shops providing information, administrative and financial support to local RECs. Access for vulnerable and low-income households should be facilitated. Support schemes and economic incentives specifically targeting RECs are underdeveloped. Regulations and financial support mechanisms need to be adapted to consider the specific characteristics of RECs, as they often develop

²⁶ D. Jacobs, K. Grashof, P. Del Rio, D. Fouquet (2020): The Case for a Wider Energy Policy Mix in Line with the Objectives of the Paris Agreement: Shortcomings of Renewable Energy Auctions Based on World-Wide Empirical Observations. IET – Int. Energy Transit. IZES Span. Natl. ReSearch Counc. CSIC Becker Büttner Held Study Comm. Energy Watch Group EWG World Future Counc. Glob. Renew. Congr. WFCGRC Haleakala Stift., p.106.

small-scale projects and aim to share the energy produced amongst their members (and not to maximize self-consumption).

However, in the meantime steps are being taken to set up enabling framework for energy sharing and RECs. The Flemish regulator of the electricity and gas market (VREG) has recently launched a study to carry out a cost-benefit analysis on grid tariffs. The existing Federation of Renewable Energy Cooperatives (REScoop Flanders) has received additional financing to facilitate the access to information and tools.²⁷ The distribution grid operator (Fluvius) has set up an IT system to enable energy sharing. And by the end of 2022 a call for tenders will be set up specifically for energy communities and energy sharing in apartment buildings.

The COME RES project partners from Flanders (Belgium) and the Netherlands organised joint country desk events. In total, three country desk meetings (kick-off meeting and two follow-up meetings), three policy labs (round tables) and two thematic workshops were organised. The Belgian project partners and several stakeholders from the Flemish country desk were engaged in good practice transfer activities as mentors. Below we provide some of the key observations and policy lessons from those project activities.

Table 2: Policy Lessons for Belgium (Flanders)

<i>There is still a large potential for renewable electricity production in Flanders that is currently untapped, and RECs are an important instrument to utilise this potential.</i>
<i>Existing regulations (e.g., injection in the distribution network, strict interpretation of “producer” and “consumer” of energy) and financial support mechanisms (green certificate system or PV call; differences in taxes on electricity and gas) can be barriers for RECs to have a profitable business case. Regulation and financial support mechanisms have to be adapted to take into account the specific characteristics of RECs which often have small scale RES projects and a primary aim to share the energy produced amongst their members (and not to maximize the self-consumption of the owner of the roof). By removing the regulatory and administrative barriers this would create opportunities for RECs to invest in RES.</i>
<i>In Flanders, renewable energy communities can register on the website of the regulator, VREG. It is unclear, however, who checks and verifies these applications and whether European regulations are complied with.</i>
<i>Energy sharing can have a positive impact on energy bills. Currently, rules have been established for energy sharing within the same building (e.g., an apartment building or office building hosting different companies), energy sharing between different properties of the same owner (e.g., between the main residence and a holiday home), and peer-to-peer trading with one other electricity consumer. However, rules for energy sharing within a (renewable) energy community still have to be established.</i>

²⁷ An information channel has recently been set up by REScoop.Vlaanderen that provides information on energy sharing for different types of actors (municipalities, citizens, companies, farmers, schools, associations of co-owners). In the nearby future tools will be provided to support each of these actors in sharing energy. Cf. <https://www.energiesdelenvlaanderen.be/> (accessed on 06.12.2022).

So far, it appears that energy suppliers are not eager to stimulate the possibilities of energy sharing among their customers and, for example, charge a fixed fee per connection point that shares energy (an obstacle if you exchange only a small quantity of energy). A general framework for energy suppliers on how to deal with customers that share energy would be useful. Today there are still too many variables that make energy sharing in a renewable energy community an uncertain prospect.

***Fair and equal participation** of RECs in the electricity system (incl. transparent cost-benefit analysis and fair distribution of network costs among all consumers) is considered to be the most urgent measure of the enabling framework to be implemented. Other critical components of an enabling framework are access to information and financing, tailor-made support mechanisms and capacity building of local authorities (e.g., in public tendering, citizen participation and RECs.)*

*Households that have the DSO as a **social supplier**²⁸, instead of a commercial energy supplier, cannot participate in a REC. Households that have the DSO as a **social supplier**, instead of a commercial energy supplier, cannot participate in a REC.*

At the local level, Flanders has some good examples of provincial and municipal decisions linking citizen participation to the development of renewable energy projects on their territory. However, these decisions are not legally enforceable.

5.1.2. Policy recommendations

Regional government (Flanders)

- Make clear which of the energy communities that are registered on the website of the VREG, also comply with the legal conditions of a REC to contribute to a better understanding of the concept and a transparent legislative framework.
- Adjust regulation and financial support mechanisms to consider the specific characteristics of RECs which often have small scale RES projects and a primary aim to share the energy produced amongst their members (and not to maximize the self-consumption).
- Ensure non-discriminatory treatment of RECs and provide a stable and transparent framework, not only making energy sharing technically but also financially feasible. If RECs contribute to the balancing of the distribution network, they should be rewarded for this effort.
- Consider a tax shift from electricity towards natural gas to make investments in RES electricity production and district heating networks more attractive.

²⁸As electricity and heating are basic human needs, Flemish legislation foresees in a number of social measures. For instance, if a household is not able to pay the energy bill from the commercial energy supplier, the household will not be disconnected. The distribution system operator will act as a social supplier till the household has a contract with a regular supplier again (<https://lokaal-bestuur.fluvius.be/nl/thema/energiearmoede-bestrijden>; accessed 09.02.2023).

- Prepare a cost-benefit analysis so that the indicated cost advantages can be allocated in case and where energy communities can offer advantages to the grid.
- Ensure access for vulnerable and low-income households to RECs: e.g., allow customers of the social energy supplier (i.e., the DSO in Flanders) to participate in energy communities.
- Ensure access of RECs, local authorities and citizens to information and financing. Set up an umbrella organisation, such as the German Cooperative and Raiffeisen Confederation (DGRV) and the Citizens' Energy Alliance (BBEn) in Germany or UKEN in Prague²⁹ providing information, administrative and financial support to local RECs.
- Ensure capacity building of local authorities so they can have a more active role in the promotion and further development of RECs on their territory.

Local governments

- Take an active role in the promotion and further development of RECs, e.g., by facilitating cooperation between relevant local stakeholders, providing financial support, allocating public roofs/land, considering citizen participation in public tendering.

5.2. Germany

5.2.1. Key policy lessons from COME RES

Although Germany has achieved a comparatively high level of community energy development including energy cooperatives, in recent years the development has slowed down considerably. This can be illustrated by the low and stagnating number of newly founded energy cooperatives.³⁰ Whilst the previous Federal government failed to fully and timely transpose the provisions of the RED II for RECs, progress has been made with the change of government. Yet, full transposition is still pending.

The legal definition of 'citizen energy company' (*Bürgerenergiegesellschaft*) which already exists since 2017 has been amended in July 2022 to fully comply with the provisions of the RED II. It serves as the equivalent for the term renewable energy community in the RED II (although the wording of 'citizen energy company' resembles the term 'citizen energy community' defined by the IEMD). Although the definition considers and specifies the principles of effective control, proximity and autonomy, it has still a rather **narrow scope of application, which is limited to electricity generation based on wind energy and PV**. The concepts of 'open' and 'voluntary' participation have not been explicitly transposed into national legislation. In the annotations to the amended Renewable Energy Sources Act (EEG), there

²⁹ On 31 March 2022, 16 Czech organisations launched 'Unie komunitní energetiky (UKEN)', a coalition that aims to support and facilitate the creation of hundreds of RECs by 2030. The ultimate goal of this Community Energy Union is to create a clean and decentralised future for the Czech energy system. More information can be found at <https://www.rescoop.eu/news-and-events/stories/united-forces-for-community-energy-in-the-czech-republic>

³⁰ See for example the most recent survey of the German Cooperative and Raiffeisen Confederation: DGRV (2022): Energy Cooperatives in Germany. State of the Sector 2021 Report, https://www.dgrv.de/wp-content/uploads/2021/06/20210623_ENG_DGRV_Umfrage_Energiegenossenschaften_2021.pdf.

is a cross-reference to the RED II mentioning the ‘primary purpose’ of such entities, but without any further specifications.

Rights, duties and possible market activities of RECs have not been explicitly laid down, although in practice energy communities are engaged in various activities including electricity storage, consumption, aggregation, sales or in a few cases even operation of distribution grids. Collective self-consumption and energy sharing represent particularly important transposition gaps as a dedicated regulatory framework is still missing. This view is shared by many stakeholders participating in the German country desk.

Regarding the establishment of an enabling framework for RECs, in 2022 the Federal government in cooperation with the state (Länder) governments took already important steps to simplify and streamline the complex and lengthy planning and permitting procedures. Further acceleration measures have been taken or are planned in connection with the EU emergency regulation.³¹ Moreover, inspired by the example of Schleswig-Holstein, one of the 16 German federal states, the new Federal government has recently set up a dedicated support programme for wind energy projects of citizen energy companies.

However, important elements of the enabling framework as defined by RED II are still lacking, including provisions that ensure cooperation between RECs and DSOs to enable energy sharing. Likewise, a transparent cost-benefit analysis of distributed energy sources, which should serve as a basis for an adequate, fair and balanced contribution of RECs to the overall cost sharing of the system, is still missing. In particular, the contributions of RECs to the security of energy supply, to making the electricity system more flexible and to stabilizing the electricity grid should be adequately considered. Access for low-income and vulnerable households needs to be facilitated. Moreover, the German partners see a need for information, advice and capacity building. The creation of an effective enabling framework pursuant to the RED II needs to consider and integrate the subnational levels of government including the federal level, the state level, the districts and municipalities. In recent years, we saw a rather fragmented policy approach. There has been hardly any strategic and coherent planning towards RECs.

In 2022, the new Federal government decided to make use of the possibilities offered by the revised EU Climate, Energy and Environmental State Aid Guidelines (CEEAG)³² and to exempt wind and solar projects of citizen energy companies below the respective capacity thresholds from the obligation to take part in auctions. This will certainly bring alleviations for community energy initiatives. As pointed out above, the definition of citizen energy companies has been amended in July 2022 to bring it in line with the RED II provisions for RECs and to avoid misuse in the future. Furthermore, the acceleration of

³¹ On 19 December 2022, the Council of the European Union formally adopted the Council Regulation (EU) 2022/2577, the so-called Emergency Regulation, to accelerate renewable energy deployment. This regulation entered into force on 1 January 2023 and is directly applicable for 18 months in all EU countries. It establishes temporary rules of an emergency nature to accelerate the permit-granting process applicable to the production of energy from certain RES technologies.

³² The new Climate, Energy and Environmental State Aid Guidelines (CEEAG) provide additional flexibility for RECs, allowing Member States to exempt REC-owned projects and SME-owned projects up to 6 Megawatts (MW) of installed capacity from competitive bidding requirements. RECs and small and micro enterprises may develop wind projects up to 18 MW without competitive bidding. More generally, where competitive bidding does apply, the CEEAG offer Member States to design tenders in a way which enhances the participation of energy communities, for example by the employment of non-price bid selection criteria.

digitisation and smart meter rollout initiated by the Federal government will likely bring important positive impulses for energy communities facilitating energy sharing, collective self-consumption or peer-to-peer trading.

In Germany, in total three country desk meetings, three policy labs (round tables) and two thematic workshops were organised. The country desk events addressed a broad variety of issues while the transposition of the RED II into national law was one of the principal points addressed in all events. The German project partners and several key stakeholders participating in the country desk joint also the good practice transfer activities. Below we summarize some of the key observations and policy lessons from all these activities.

Table 3: Policy Lessons for Germany

Collective self-consumption, neighbourhood concepts (German: Quartierskonzepte) and energy communities are considered by many stakeholders as important elements of any future energy strategy, also and especially with regards to price stabilisation, system resilience and security of supply. However, even if self-consumption of electricity has become more attractive from a purely economic perspective due to the abolition of the renewable energy surcharge by 1 July 2022, there are still massive administrative barriers. These inhibit the collective use of RES based energy in the same building, multi-apartment blocks and neighbourhoods, including numerous obligations jointly acting self-consumers have to fulfil in their role as energy suppliers. In order to facilitate collective self-consumption schemes, the current principle of personal identity (which envisages that the operator and the user of the electricity have to be the same person) should be abolished.
There is a need to alleviate the administrative burden for landlord-to-tenant electricity projects (Mieterstromprojekte). There are many burdensome and costly energy management obligations (e.g., obligations of energy suppliers, documentation, accounting obligations) which such schemes have to fulfil.
Many stakeholders represented in the German country desk see energy sharing as a key to reduce energy costs for the members of a REC and enhance local acceptance of RE projects. For the Federal government, however, the introduction of energy sharing is apparently linked to the development of a new overall market design (incl. levy/ surcharge reform). A key concern of the government is to reach a fair allocation of system costs and avoid social imbalances.
There are still many bottlenecks in planning and permitting procedures which are commonly considered lengthy and overly complex. Numerous stakeholders participating in the German country desk stressed that simplified and streamlined planning and permitting procedures are key for the implementation of the ambitious federal targets. The COME RES online stakeholder survey carried out in Germany indicates that for 87% of the respondents the reduction of administrative burdens represents the most suited type of support for RECs.³³

³³ Standal, Ytreberg et al. 2022, page 49 (see footnote 11).

More than 70 % of the respondents in Germany participating in the **online stakeholder survey** claimed that facilitation of access to finance for RECs should be considered a priority. The desks revealed that start-up funding to cover upfront costs might facilitate the development of REC projects.

The stakeholder dialogues in the frame of the German country desk also showed that in addition to financial support there is a need for **accompanying measures**, including the dissemination of good practices, support in the development of networks as well as assistance in the professionalisation of energy cooperatives.

A major problem is that the federal and state ministries are too far away from the local level and do not have sufficient administrative resources to support energy communities. **Intermediaries** and **one-stop-shops** seem to be necessary for providing **advisory services** as well as **institutional and technical support** for citizens, local communities and municipalities. Some state energy agencies are already carrying out or could carry out such functions. It would be desirable for state energy agencies to have more staff and resources.

The insufficient endowment of electricity consumers with **smart meters** represents a key bottleneck for energy communities in general and energy sharing in particular. Besides the slow **smart meter rollout**, digitalisation of the energy transition is generally underdeveloped (see for example the poor digitalisation of administrative procedures including projects' permitting).

5.2.2. Policy recommendations

National government

- Fully transpose the RED II and IEMD. Check if the existing legal definition of 'citizen energy company' fully and properly complies with the provisions of the RED II. Introduce a legal definition of CECs that fully complies with the requirements the IEMD and ensure that misuse will be avoided.
- Ensure access of RECs to all energy markets, including flexibility markets.
- Systematically **assess potentials and barriers** of RECs as required by RED II. Develop a **transparent cost-benefit analysis** of distributed energy sources as required by RED II. Systematically assess the contributions of RECs to enhance energy security and electricity grid stabilisation.
- Provide a proper regulatory framework for **energy sharing**. This may include exemptions from or reductions of grid charges, levies and surcharges on self-consumed electricity or special premiums for shared electricity. Provide support to pilot projects and disseminate their experiences.

- Take appropriate measures to ensure that DSOs cooperate with RECs to enable energy sharing. Consider the proposals of community/citizen energy associations (*Bündnis Bürgerenergie, Deutscher Genossenschafts- und Raiffeisenverband*) and other associations.
- Create an enabling framework for **jointly acting self-consumers** and reduce the administrative barriers (e.g., remove the principle of personal identity between the plant operator and the final consumer). Reduce the administrative burden for collective self-consumption (CSC) schemes referring to energy supply and reporting obligations. Extend the possibility of CSC to a complex of buildings/neighbourhood concepts). Promote the development of tenant electricity models and remove prevailing barriers.
- Simplify and streamline the planning and permitting procedures for renewable energy projects in cooperation with the state governments. Consider to introduce binding deadlines for the participation of public authorities. If no comments are received by the set date, this should be considered as an approval.
- Overhaul the system of charges, levies and taxes and make sure that RECs contribute in an adequate, fair and balanced way to the overall cost sharing of the system considering the costs and benefits RECs can provide to the energy system (Art.22,4 RED II).
- Emphasise and strengthen in respective strategies, programmes and legislation, the important role of decentral energy approaches including community energy for energy security, flexibility and grid stability.
- Extend the funding programme for citizen energy companies in the field of wind energy to also include other RES technologies. Provide accompanying support including advice, capacity development, and networking in close cooperation with the federal states.
- Promote the digitalisation of permitting procedures and accelerate the roll-out of smart meters.
- Consider to complement the existing target architecture of the energy transition and establish quantitative political goals for the future development of citizen energy in general and energy communities specifically. Establish a monitoring system.

Federal state (Länder) governments

- Highlight in respective strategies, programmes and legislation, the important role of decentral energy approaches including community energy for energy security, flexibility and grid stability.
- Systematically assess potentials and barriers of RECs as required by RED II.
- Develop accompanying measures in cooperation with the federal government enhancing experimentation, capacity development and institutional support for energy communities, municipalities, citizens and SMEs through intermediaries like regional and local energy agencies. Consider to establish one stop shops and coordination centres for energy communities (see the example of Austria).

- Inform landowners, municipalities and citizens about the advantages of community wind farms, community solar farms and other forms of community energy. Provide guidance to municipalities on how to promote such community energy initiatives.
- Where feasible, link the development of local land use plans for the development of solar farms to the compliance of the developers with specific social criteria requiring or rewarding procedural and financial participation of citizens/communities.
- Make sure that municipalities can financially engage in RECs and become members.
- Reduce the administrative barriers in spatial planning and project permitting.
- Promote the implementation of pilot projects in the field of energy sharing and disseminate their experiences.
- Promote the development of sustainable multi-use concepts (co-)owned by local communities like multi-functional solar farms (following the Dutch example of multi-functional Energy Gardens), environmentally sound Agri-PV etc.
- Consider to set up regional targets for the development of community energy/energy communities by 2030 and beyond.
- Provide suitable areas for renewable energy systems that are operated by RECs or in cooperation with RECs (e.g., roofs on state-owned buildings, other suitable state-owned areas including forest sites).

Municipalities

- Promote the idea of RECs, initiate REC projects and financially engage in REC projects where this is possible/reasonable.
- Provide suitable space for RES facilities operated by RECs or in cooperation with RECs (e.g., roofs on municipal buildings, other suitable municipal areas)
- Link the leasing of municipal land/roof areas with compliance with certain social criteria by the respective developer (e.g., financial participation of local citizens, local value creation)
- Purchase electricity and heat/cold for municipal buildings and properties from RECs as part of public procurement and apply specific social criteria tailored to RECs.
- Facilitate the development of RECs by creating networks.

5.3. Italy

5.3.1. Key policy lessons from COME RES

In Italy, the RED II has played a catalyst role for the development of community energy initiatives.³⁴ Initially, there has been an early and partial transposition of the RED II that enabled some experimentations. However, these pilots faced constraints on proximity (secondary substations) and power (max 200 kW per plant). The perimeter information (secondary substation) was really difficult to retrieve, and this limited the development of the experimentations in this early stage. According to the Renewable Energy Report 2022 published by the Milan Polytechnic University in May 2022³⁵, all RECs in Italy are based on photovoltaic systems with an average electric capacity between 15 and 40 kW. In order to qualify for financial support, all RECs need to be approved by the Energy Service Manager (ESM). By 2 May 2022, the ESM had received 37 instances of access to incentives, including 13 from Renewable Energy Communities and 24 from Collective Self-Consumption initiatives. More than half of the applications came from Lombardy (6), Piedmont (7) and Veneto (9). However, the uptake of RECs is probably much higher compared to the cases registered with the ESM and continues to grow. In 2022, Legambiente, the largest Italian environmental NGO, mapped 100 energy communities³⁶, from which 35 were operational, 41 planned and 24 taking first steps towards establishment. Of these 59 were surveyed between June 2021 and May 2022. These include RECs that are legally established, those who have already built plants and those who are going through or have already completed the registration procedure on the portal of the Energy Service Manager (ESM) dedicated to energy communities. In this regard, it is worth considering that many RECs have decided to wait for full transposition of the RED II (moving to a wider scope and plant capacity up to 1 MW) and will likely move to the implementation phase in the coming months.

Based on several hundred interviews with experts, businesses, representatives of local communities and other actors between October and November 2022, Symbola Foundation, Tea Group and IPSOS published a report that analyses the level of knowledge and diffusion of energy communities (RECs) among businesses, church institutions and civil society.³⁷ The researchers found a good level of knowledge about RECs with 75% of interviewed church institutions being familiar with the concept while the corresponding share among interviewed citizens was about 15%. 13% of interviewed citizens were well acquainted with the concept of RECs, 32% of businesses and 47% of church representatives.

The transposition of REC definition, rights, obligations and activities can be regarded as relatively advanced. Italy has implemented several incentives for collective self-consumption and energy communities. Nonetheless, there are still transposition gaps and shortcomings. Delays, bureaucratic red tape for assigning incentives on the side of the responsible Ministry of Ecological Transition (presently,

³⁴ M. Krug, M.R. Di Nucci, M. Caldera, E. de Luca (2022): Mainstreaming Community Energy: Is the Renewable Energy Directive a Driver for Renewable Energy Communities in Germany and Italy? *Sustainability*, 14(12), 7181, <https://doi.org/10.3390/su14127181>

³⁵ Energy & Strategy Group of School of Management of the Milan Polytechnic University (2022): Renewable Energy Report 2022, <https://insideeys.it/news/586536/renewable-energy-report-2022-polimi/>

³⁶ Legambiente, Comunità Rinnovabili 2022 <https://www.legambiente.it/comunicati-stampa/legambiente-presenta-comunita-rinnovabili-2022/>

³⁷ Symbola Foundation, Tea Group and IPSOS, Comunità energetiche, una ricetta anti crisi, 2022 <https://www.symbola.net/approfondimento/crescono-le-comunita-energetiche-rete-di-rinnovabili-nelle-parrocchie/>

Ministry of Environment and Energy Security), the regulator Arera's delay in issuing the implementation rules, which combine with difficulties in receiving the information needed to identify the scope of RECs, delays in registration and assignment of the incentives, and also costly estimates for grid connections.

On top of that there are technical barriers. The members of a REC must be connected to the same low and medium voltage grid and to the same HV/MV primary substation. Often there are delays by the local electricity distribution companies in providing information on the perimeter of the secondary transformer substation. Although Decree 199/2021 increased the capacity limit for RES plants owned by a REC from 200 kW to 1 MW broadening the possibilities of citizens and small and medium enterprises to engage in RECs, the process of approval of the implementation rules is not completed yet and therefore, this measure cannot be implemented yet.

Only recently, on 28 November 2022, one year after Decree 199/2021, the Ministry of Environment and Energy Security (MASE) opened a public consultation on the draft implementation rules of the Decree 199/2021 for energy communities. The document identifies criteria and modalities for granting incentives to promote the implementation of RES installations including installations operated by energy communities, collective and individual remote self-consumption schemes. The consultation was open until 12 December 2022.

The enabling framework for RECs in Italy can be considered as advanced, also thanks to the early RED II transposition. Italy has a set of promising and mutually reinforcing support measures and generous incentives. There is a premium for shared energy of 110 EUR/MWh for 20 years plus 9 EUR/MWh - as repayment of costs not incurred by operating and thus discharging the electricity grid.

The energy sharing model is virtual (RECs use the existing distribution network). Some tariff components are returned for lower network use to the REC members. Under the Recovery and Resilience Plan (PNRR), 2.2 billion EUR are going to be allocated in the coming years for the establishment of RECs in small towns with less than 5,000 inhabitants. Permitting procedures for the installation of PV plants up to 50 kWp and also for larger plants have been simplified.

Regions, along with the central government, play a key role in promoting the diffusion of RECs. To date, 13 regions have already a legal basis for RECs. Several regions have set own targets for the establishment of RECs. For example, the regional government of Lombardy announced in February 2022 its plans to establish 6,000 new RECs within five years resulting in an increase in installed photovoltaic power of almost 1,300 MW. The Environment Commission of the Lombardy Regional Council approved the draft law for the promotion and development of a system of RECs. The measure envisages the creation of a Lombardy Regional Energy Community (CERL) that will function as a coordination centre for all energy communities in the region. However, it is also important to emphasise the role of municipalities. Municipalities are often considered as the predestined entities to lead REC projects. However, often they also enjoy the benefits of local RECs without engaging in the management of a REC, e.g., by initially entering as mere consumers.

In the frame of COME RES project three country desk meetings, two policy labs (round tables) and two thematic workshops were organised and offered the possibility to discuss in an open dialogue barriers

and drivers for the development of RECs and propose recommendations for policy at different governance levels. The project partners and key stakeholders contributing to the Italian country desk were actively engaged in good practice transfer activities both as ‘mentors’ (transfer of the REC model in Magliano Alpi to Latvia) and as a learning region (transfer of the model of the Belgian energy cooperative Ecopower to Apulia). Moreover, they were involved in the preparation of a regional action plan proposal for the target region of Apulia. Below we summarise key observations and policy lessons of all those activities:

Table 4: Policy Lessons for Italy

<i>The Italian country desk events addressed a broad variety of issues concerning the transposition of the RED II into national law. Despite the progress in transposing the RED II provisions for RECs, these face still a number of restrictions (e.g., technical constraints, capacity limits) which need to be removed. The desk activities illustrated the need a) to reduce bureaucracy and simplify the authorisation processes, b) to urgently adopt clear rules to fully transpose RED II (including implementing rules), c) the possibility in particular for small communities to be assisted in the drafting of business plans, d) to provide special support to the development of RECs in marginal areas and urban suburbs contributing to overcome energy poverty. Moreover, the crucial role of the regions for the dissemination of RECs is fundamental to transpose and adjust national laws to the regional level.</i>
<i>In Italy, the legislative framework is addressed to coordinate the national and regional level of energy policies. The regions and the regional policy context are strategic in supporting RECs. Many regions are providing grants to municipalities interested in the development of energy communities. In the strategic planning to support the diffusion of the energy communities, regions play a key role both as entities very close to citizens and as the "ultimate implementers" of national policies. Regions are obliged to implement national legislation through ad hoc measures. Although at present not all regions have enacted specific laws, they are progressively enacting measures by which national legislation is transposed and measures to promote energy communities at local scale are established.</i>
<i>Municipalities along with businesses and citizens are pivotal stakeholders who will often be members of RECs and who will have to be encouraged with economic and financial autonomy but also other motivational measures, so that they feel they are actively involved in the project, being potential co-creators of a long-term success story.</i>
<i>The authorisation processes need to be streamlined and project lead times reduced.</i>
<i>The idea of “pooling” or sharing energy serves as a symbol for the ability of citizens living well together and illustrates the sense of community. This different approach towards energy consumption constitutes a long-term and prospective strategy that has the potential to cope with future crises and save money.</i>

For the implementation of projects, it is crucial to connect with (local) entities that are experienced in this field. Moreover, it will be essential to create overall know-how, with experiential sharing of best practices to be pooled, so as to create replicable models on a large scale.

The establishment of RECs must be supported from the very beginning, by promotional and information initiatives, training activities, and dissemination of technical support tools. These aspects have been highlighted and considered as a necessary requirement in several regional calls for tenders in order to support the creation of new RECs.

Adopting consumption monitoring and control tools can help reduce "non-conscious" consumption by users.

Territorial networks, as for example Community Operational Groups (GOGs) in Piedmont, facilitate local processes and create professionalisation of RECs. GOGs are formed with reference to a specific opportunity to be promoted and/or a particular issue to be solved through innovative solutions with reference to the objectives of a REC. GOGs are composed of stakeholders relevant to the achievement of the objectives of REC and operate according to an interactive innovation model based on cooperation, knowledge sharing and dissemination, promoting a bottom-up participatory process.

5.3.2. Policy recommendations

National government

- Consider RECs as the “piece of a puzzle” that embraces broader issues such as social sustainability, energy poverty, the communities in which they operate, and the supply chain from a broader sustainability perspective.
- Consider RECs as useful instruments to make the ecological transition (and not only the energy transition) more concrete and understandable from a truly systemic and strategic long-term perspective.
- Support the democratisation of energy consumption whereby everyone can do his or her part. So, top-down approaches and disparities between consumers and producers/suppliers can be mitigated for the benefit of a more bottom-up, horizontal, and egalitarian logic.
- Implement the measures envisaged for RECs in the Recovery and Resilience Plan using in an effective manner the resources made available.
- Remove the current restrictions RECs are facing in terms of capacity limits and grid connection requirements.
- Ensure the conditions for a non-discriminating flow of information and real cooperation between RECs and DSOs.

- Pay more attention to the administrative procedures to overcome the uncertainty caused by regulatory transitions.
- Support the deployment of RECs in marginal and peripheral areas contributing to overcoming energy poverty, depopulation and supporting small local economies, as stated in the National Recovery and Resilience Plan.
- Promote the use of different RES technologies by RECs including wind turbines, solar panels, but also bioenergy and geothermal energy facilities.
- Encourage repowering of existing plants.
- Evaluate the positive economic, environmental and social impact generated by the RECs on the territory.
- Maintain existing fiscal incentives (e.g., the “superbonus”).

Regional governments

- Consider to create territorial networks, as for example in Piedmont with Community Operational Groups (GOGs), facilitating local processes and creating professionalisation of RECs.
- Pay more attention to the development of business plans for RECs in small municipalities and take into consideration the experience of other regions (e.g., the case of Apulia and the way of collecting financial resources for RECs through crowdfunding and contributions of small investors).

Municipal governments

- Many of the Italian municipalities that have joined the European Covenant of Mayors initiative, need to capitalise on their experiences in order to find a broader and aware consensus for the deployment of RECs. Small municipalities using this awareness, can take advantage of territorial and shared energy management among neighbouring municipalities particularly if pertaining to the same high/medium voltage primary cabin.

5.4. Latvia

5.4.1. Key policy lessons from COME RES

In Latvia, RECs are still in an embryonic stage of development. In July 2022, the Latvian parliament adopted a general legal framework for RECs transposing key provisions of the RED II. A legal definition of RECs has been included in the amendments to the Law on Energy. The Government is planning to issue complementary regulations by 28 February 2023 specifying items like 'proximity', 'autonomy' and 'effective control', internal rules that determine relations among the members/shareholders of a REC, and registration requirements for RECs. The amended Electricity Market Law contains definitions of legal terms like 'electricity sharing', 'electricity sharing agreement' and 'flexibility services'. Furthermore, the law specifies the activities, rights and duties of energy communities in the electricity sector. By 28 February 2023, the government is expected to issue regulations determining the procedures of electricity sharing.

The enabling framework for RECs is still underdeveloped. Insufficient access to information and financing are particularly critical bottlenecks. However, there are also promising elements: the Ministry of Economics, in co-operation with the Ministry of Environmental Protection and Regional Development are planning to elaborate guidance for the formation of energy communities, including recommendations for public authorities regarding the provision of support for energy communities and their participation in such entities.

Existing support instruments for RES are by far not sufficient to effectively facilitate the development of RECs. There is an urgent need to develop financial support instruments tailored to the different phases of REC development: pre-investment support, investment support and operational support. This should be accompanied by a differentiation of the distribution system services' tariffs. Furthermore, a diversification of support instruments seems to be useful in combining information provision, capacity development with economic incentives.

In Latvia, in total three country desk meetings, three policy labs (round tables) and two thematic workshops were organised in the frame of COME RES. Furthermore, Latvia was among those COME RES partner countries where barriers and drivers for RECs have been extensively analysed. Moreover, the Latvian partners and several key stakeholders represented in the country desk were actively engaged in the COME RES transfer activities, initiating a transfer of the REC model of Magliano Alpi in Piedmont/Italy to Latvia. Below we summarize key observations and policy lessons of all those activities.

Table 5: Policy Lessons for Latvia

Despite recent advancements with regard to the transposition of the RED II provisions for RECs into national law, there are still several key elements missing in the legal and regulatory framework to ensure proper operation of these entities (e.g., energy sharing regulation, rules regarding 'effective control' and 'autonomy', proximity definition). Therefore, the adoption of supplementary governmental regulations is essential to realise the general framework. This will also provide the possibility to initiate pilot projects.

The COME RES country desk activities and solution-oriented stakeholder dialogues helped to facilitate the transposition of the provisions for RECs in national legislation by:

- encouraging the participating stakeholders to provide input to the drafts of national legislation and policy planning documents;*
- sharing experience and findings from the COME RES project, particularly regarding the design of an enabling framework for RECs;*
- exchanging ideas, how energy community should look like in Latvia, evaluating the different possible REC business models and their economic viability; promoting the elaboration of the financial support schemes;*
- analysing relevant municipal sector legislation regulating the activities of local governments and the specific provisions that facilitate or inhibit their participation in RECs. The role of municipalities for the promotion of RECs was generally considered significant and appropriate municipal sector legislation was deemed essential.*

The country desk provided a unique opportunity for the stakeholders and offered a helpful platform to discuss the COME RES results and their adaptation in Latvia.

*The **online stakeholder consultation/survey** among Latvian stakeholders performed in the COME RES project clearly illustrated that RECs would play a highly important role in the energy transition towards low-carbon society, particularly by (i) ensuring public acceptance for energy transition, (ii) ensuring a smart and flexible energy system, (iii) ensuring sufficient renewable energy production. More than 90% of the respondents considered electricity generation as the most promising field of activity for RECs, which underlines the importance of the legislative and enabling framework for REC operation in the electricity sector. The survey further illustrated the need to overcome the following barriers for RECs:*

- Lack of the awareness of REC as a concept/model,*
- Lack of national/local policy attention for REC as a concept and their potential benefits,*
- Lack of networks and knowledge exchange among relevant stakeholders,*
- Lack of economic incentives and financial support.*

5.4.2. Policy recommendations

National government

- Generally, ensure an integrated and holistic approach to promote REC development effectively taking into account and addressing the different phases of REC.

- As RECs are novel actors in the Latvian electricity market, it is recommended to test their operation and promote pilot projects with the active participation of the DSO.
- In order to ensure compatibility of legislation addressing municipalities with the specific legislation for RECs, it is recommended to remove restrictions that might limit the engagement of municipalities in RECs (any restrictions should be well substantiated).
- Develop a mix of mutually reinforcing REC support instruments (informative, economic, fiscal, etc.).
- Elaborate and implement support instruments addressing different stages of REC development:
 - Support programmes for the preparation of administrative and technical documentation of a REC (pre-investment support to minimise the burden of upfront costs),
 - Investment aid programme for technical equipment and infrastructure,
 - Effective support scheme for purchasing RES based electricity, e.g., auctions. When designing such a support scheme, the specific role of RECs should be adequately considered, e.g., by including community-focused bidding criteria, tailored bidding windows for RECs, or allowing RECs to be remunerated through direct support where they comply with requirements of small installations (see also RED II, recital 26). Further, it is recommended to take into account the experience of other countries which have already established competitive bidding systems.
- When developing differentiated power grid services tariffs, take into account the extent to which the public grid (low, medium and high voltage) is used by RECs and introduce a specific tariff regime for electricity self-consumption /sharing.
- Develop guidelines for the step-by-step formation of RECs and provide advice and training based on these Guidelines.

Planning regions³⁸

- Integrate the concept of RECs in the long-term planning documents of the planning regions by pointing to the potential benefits of RECs such as use of renewable energy, enhancing security of supply, contributing to regional/rural development and addressing challenges, e.g., mitigating energy poverty.
- Inform citizens on the multiple benefits of RECs, particularly social ones by using the entire spectrum of communication channels and tools that are available for the planning region.

³⁸ There are five planning regions in Latvia operating under the supervision of the Ministry of Environmental Protection and Regional Development. They are mainly responsible for long-term sustainable regional development planning and coordination/cooperation between local governments and other public administration bodies. They develop, implement and monitor the respective regional planning documents and implement projects within the scope of regional development support measures.

- In the role as a regional-level institution, bring together the potential stakeholders for REC projects, check the project's funding options, and take the role of a promoter (or developer) of REC projects.
- When promoting the development of RECs, co-operate with (regional) energy agencies (if applicable in the particular region).
- When promoting the development of RECs, co-operate with (regional) energy agencies (if applicable in the particular region).

Municipalities

- Consider RECs as a vehicle to meet climate change mitigation targets at the municipal level and make REC development an integral element of your Sustainable Energy-Climate Action Plan (SECAP) and/or other municipal planning documents.
- Formulate basic social and environmental goals and benefits (in addition to the economic ones) to be provided by RECs in the area of your municipality.
- Carry out local campaigns to communicate the benefits of RECs and to encourage citizens' involvement in RECs. Use a wide spectrum of communication channels and tools. Pursue a dialogue with already existing civic organisations, such as homeowners associations, neighbourhoods associations, local LEADER groups, and „smart village“ groups.³⁹. Municipal governments may mandate their energy agencies or other suitable municipal-level authorities to create a platform, that can gather citizens, informing them about RECs and enabling a dialogue.
- Carry out a municipal/regional assessment of available renewable energy resources to demonstrate that there is potential return on investment in making use of them. The assessment should also include a mapping of relevant stakeholders and those with technical and legal capacity to assist in community energy development.
- Identify/map potential sites for RES installations operated by RECs (via thematic spatial planning), particularly roofs of municipal and other buildings or areas suitable for ground-mounted solar PV and wind turbines. Adopt relevant municipal regulations for the respective use and development of the territory.
- Provide legal, technical as well as other forms of assistance supporting the foundation of RECs, both through municipal experts and by facilitating communication with specialists/experts outside the area; provide assistance in contacting relevant national authorities.
- Allocate financial resources in the municipal budget to support, at least partially, the “soft” upfront costs of REC development.

³⁹ The EU Action for Smart Villages initiative was launched by the European Commission in 2017. Smart Villages are communities which build on and enhance their existing strengths and assets through creative thinking and by embracing innovation to create desirable places for people to live and work. The Smart Village movement is actively developing in Latvia and its coordinator was involved in the COME RES transfer activities.

5.5. The Netherlands

5.5.1. Key policy lessons from COME RES

Legislation transposing the RED II and its provisions for RECs was adopted in July 2022. However, full transposition is still pending. The new Energy Law defines the 'energy community' (merging the EU definitions of REC and CEC into a single concept) as a new legal entity that can be active on energy markets, regulates consumer protection, offers grid operators more possibilities for tackling the congested electricity grid, provides households and businesses with more possibilities for active participation in the energy market and ensures safe and controlled data exchange between grid operators, market players and energy consumers. RECs can include in their statutes the requirement that only natural persons, local authorities or SMEs can become shareholders and effective control belongs to those shareholders located in the proximity of the renewable energy project. Specifications of key terms such as 'effective control', 'proximity' etc. will be the subject of further implementing acts. In the new legislation, RECs are introduced as a new market actor, with the same rights and obligations as other market actors and are treated on equal footing. A regulatory framework for energy sharing is under development. New grid codes are being developed by the competent market authority leading the right direction. However, the DSO itself does not yet consider this a strategic priority and internally work to change the mindset on this issue.

Although full transposition of the REC definition is pending, the country has already a comparatively advanced enabling framework for RECs, which can be attributed to the interplay of initiatives taken by many policy and civil society actors (e.g. regional and national umbrella organisations representing energy cooperatives). This complex interplay of enabling initiatives is the result of the polycentric nature of Dutch climate policy. The Dutch Climate Agreement of 2019 (the result of deliberations and negotiations involving over a hundred representatives of lower administrations, industry, and interest groups, under the guidance of the Dutch Social and Economic Council) stipulates the creation of 30 energy regions, each of which is obliged to work out a 'Regional Energy Strategy' (RES). These regions constitute an institutional novelty (at least in the domain of energy and climate policy) because the regions are not a formal constitutional tier of government in the Netherlands and have no legal status or power to implement the decisions taken within the framework of the RES. Targets to be met by these RESs are not imposed by the central government, as the RES regions have relative autonomy to decide on regional transition goals, with the understanding that each region should take on an unspecified fair share of the national effort. The national level considers that it has fulfilled its part in providing an enabling framework for RECs/energy communities within the limits of its mandate, i.e.:

- Defining energy communities (and the legal stipulations with regards to their governance and functioning as set out in the REDII) as new legal entities on the energy market which should be treated on equal footing with traditional energy market players;
- Providing specific operational support (feed-in premiums) for energy cooperatives and associations of homeowners;
- Carrying out a potential assessment study (2019);

- Establishing a political ambition of 50% local ownership of renewable energy on land by 2030 (under the form of a non-binding policy target).

The enabling framework is mainly developed at the level of the recently established 'RES regions', however, with only poor coordination between the regions. For instance, the provinces of South Holland, Utrecht, Limburg and Drenthe have established a special 'development fund' for relatively large-scale wind or solar power projects (with a total projected cost > 500,000 EUR) which can be regarded as a promising showcase for other provincial governments. This fund provides start-up finance and risk capital to finance upfront costs which would be later repaid (with an additional risk premium) if projects prove successful. Despite the relatively favourable enabling conditions, many municipalities (especially the smaller ones) still lack the necessary information or resources to engage with local energy communities. Among the COME RES countries, the Netherlands is the only case that integrated indicative provisions for RECs in spatial planning. As in most other analysed countries, a transparent cost benefit analysis is lacking so far, while also RECs do not enjoy any reduced network charges.

In the Netherlands, in total three joint country desk meetings, three policy labs (round tables) and two thematic workshops were organised in the frame of COME RES in cooperation with the project partners from Flanders (Belgium). The Dutch project partners and selected stakeholders were also involved in the good practice transfer activities as mentors (transfer of the Dutch concept of Multifunctional Energy Gardens to the German target region of Thuringia). During the second country desk meeting (back-to-back with policy lab) the participants identified key priorities on which the enabling framework for RECs in the Netherlands should focus and possible actions:

Table 6: Policy Lessons for the Netherlands

<i>As far as cooperation with the DSO is concerned, many areas of the distribution network in the Netherlands (including, but not limited to North Brabant, the COME RES target region) are facing an electricity transport capacity problem. This should be seen as an opportunity to promote energy sharing within energy communities, as this could alleviate some of the capacity problems. New grid codes are being developed by ACM (the Dutch market authority) that are moving in the right direction. However, according to the stakeholders consulted in the policy lab the DSO itself does not yet consider this a strategic priority and internally work to change the mindset on this issue.</i>
<i>In terms of support and capacity building for local governments, many municipalities (especially the smaller ones) lack the necessary information or resources to engage with local energy communities. Differences in strategic vision also play a role, e.g., in terms of the envisaged collaboration with energy communities.</i>
<i>In terms of access to funding and information for energy communities, a positive aspect is that some Dutch provinces (Achterhoek, Drenthe, Limburg, Utrecht and Zuid-Holland) together with the cooperative umbrella organisation Energie Samen have established development funds specifically for RECs (with a total projected cost > 500,000 EUR). In the COME RES target region (the province of North Brabant), the provincial government holds a development fund of approximately two billion</i>

EUR created by the sale of Essent NV. This money is invested by the province in green and future-proof solutions. This development fund is not specifically targeted towards RECs, however. It is up to the RECs to approach the fund managers and prove that they can work out such future-proof projects. A problem that remains is that RECs must first invest in feasibility studies before they can apply for support from this fund. Especially for small communities working on a voluntary basis, it is difficult to get this money.

The **50% local ownership target** for onshore renewable electricity generation enshrined in the Climate Agreement in the Netherlands is a non-binding target but needs to be further regulated through dedicated policy frameworks. In the final licensing of renewable energy projects, there is no hard check on whether there is actual participation. Municipalities often settle for the commitment of project developers to issue a bond and establish a fund to develop projects in the immediate vicinity. Different approaches are taken in different municipalities, and, in this sense, there is arbitrariness as to whether and how strong the foothold is that you can get as an energy community. It is unclear whether such arbitrariness can be quickly resolved through a national legislative process that will most likely take many years to be completed. It also seems that the national government is also not keen on giving any further specification of the “50% local ownership target”.

Equal access to the electricity market is reasonably ensured in the Netherlands. A more pragmatic approach to policy on RECs is possible because the barriers for entering the electricity market are very low. In the Netherlands, the law on energy market liberalisation is very well structured, regulating activities and not parties. From this perspective, we can also explain why the comparative assessment report (COME RES Deliverable 7.1)⁴⁰ highlighted that the Netherlands has a limited and mainly formal transposition of European legislation on RECs, but at the same time has a well-developed enabling framework. Because the liberalisation of the electricity market was well established, the cooperative movement was not overly concerned with elaborating legislation. Instead, the cooperative movement focused on supporting the development of energy communities ‘on the ground’.

There is currently a problem for **collective heat in neighbourhoods** where residents start an initiative. This is because there is a perverse dynamic in which a citizen initiative takes on an economic activity, e.g., as a cooperative, then the municipality automatically activates the rules pertaining to commercial activities. In the case of collective heating solutions, the municipality has to grant other parties equal access to the ‘market opportunity’ in a particular neighbourhood through e.g., a tender. Thus, If a cooperative sets up an initiative, they “shoot themselves in the foot” because by doing so they simultaneously pave the way for competitors.

In the Netherlands, the new Energy Law does not yet include rules for **energy sharing** within an energy community. Provided certain conditions are met, energy communities are allowed to supply electricity without having to acquire a supply licence. At the same time, however, energy communities that supply electricity to their members still have to comply with the rights and obligations of a

⁴⁰ Krug et al. (2022), footnote 3

traditional energy supplier. At the moment, it seems that only the cost of applying for a supply licence (around 1,500 EUR) is saved.

*Citizens' initiatives need to **professionalise** at some point if they want to increase scale and become major players in renewable energy development. Upscaling and the establishment of RECs at the urban or regional level requires development money ('finance-to-develop'). To professionalise, funds are needed to hire external staff or pay people in the cooperative. Energy cooperatives in the COME RES target region (Hart van Brabant and North-East Brabant) are working hard to acquire such funds.*

***Grants/funding streams** should be aligned, e.g., start-up grant, planning grant, development loan and then funding or guarantee for equity. It is important that the funds also effectively go to the REC thereby contributing to a further professionalisation of RECs in general. By letting money flow to the REC, capacities within the REC are built up to take up ownership and responsibility for new project development. In the COME RES target region, the Association of Energy Cooperatives Hart van Brabant, for example, has closed an agreement with the municipalities that if they are asked to carry out a project, they must be compensated at cost price.*

***Subsidies** are necessary when starting a citizens' initiative (just as a lot of subsidies go to other start-ups) but further development towards a sustainable business model is needed. However, RECs also solve many other societal issues because they are locally anchored, have a network and solve problems much more efficiently than external parties. Subsidies (or commissioning from the community) are justified for such activities.*

5.5.2. Policy recommendations

National government

- National legislation should consider offering RECs that help with congestion management (e.g., through smart energy sharing) priority access to the grid. Such smart energy sharing projects could for instance be made eligible under the SDE++ subsidy⁴¹, and incentives for participating in such projects could be offered through a reduction of VAT.
- With regard to grid access, new grid connection codes need to be developed by the competent market authority (ACM).
- The Heat Act should include provisions for citizen initiatives to be treated as a different kind of party (compared to commercial project developers) that needs a different kind of access to the market because they are part of the neighbourhood (whilst staying in line with EU legislation).

⁴¹ The SDE++ scheme provides subsidies for the use of techniques for the generation of renewable energy and the reduction of CO₂. In order to be eligible for the SDE++ subsidies, several conditions have to be met. There are general conditions and category-specific conditions. More information can be found on the following website <https://english.rvo.nl/subsidies-programmes/sde>

- Provide clear guidance and regulations on the '50% participation by the local environment by 2030' national policy target.

Regional governments (provinces)

- With regard to support for capacity building and funding, consider providing a loan for necessary studies and risk capital, which would later be repaid if the REC project proves successful (cf. the so-called 'development fund' used in the provinces of South Holland, Utrecht, Limburg and Drenthe). Other provincial governments could set up similar funds. Depending on their financial capacities they could do this on their own or in partnership with other fund managers.

Local governments (RES regions and municipalities)

- RES regions can set up 'collaboration agreements' with a coalition of energy communities active in their region for supporting their regional energy strategy. Such an agreement would set out which tasks will be delegated to the coalition of energy communities, including the fees for carrying out these tasks. In this way, the regional energy strategy contributes to the further professionalisation of the energy community movement.
- Provide sufficient space for RES facilities run by RECs (for example, on the rooftops of municipal buildings or on municipal land) or make the lease of municipal land or rooftops conditional on the developers' adherence to a set of minimal guidelines for citizen participation.
- Provide and align subsidies for RECs, especially in the start-up phase.

5.6. Norway

5.6.1. Key policy lessons from COME RES

The concept of RECs is rather new in the Norwegian context and is not generally understood as limited to the definitions in RED II (concerning e.g., who are entitled members/shareholders, rules on proximity and social, environmental or economic benefits). Further, since Norway is not an EU member, but part of the European Economic Area (EEA), the process of implementing RED II is not following a predefined time schedule, and thus does entail a high policy focus on RECs. Transposition of EU directives and other EU legislation depend on individual procedures and negotiations between the EU and the EEA/EFTA. RED II is currently under review by the EEA/EFTA.

RECs have not been legally defined and an enabling framework for RECs or energy communities in general is underdeveloped. Our research findings suggest that there are high barriers for establishing RECs (see Tab. 7). Furthermore, though there is an increasing interest in decentralised energy solutions to meet local energy demands and ensure energy flexibility, this is not in general driven by grassroots actors such as citizens, local authorities and SMEs. However, there are positive developments in so far as regulations have been proposed to extend the 'plus-customer scheme' that grants households rights

as prosumers.⁴² The new regulations will facilitate joint electricity production and consumption within the same property and thus open up for condominiums to become energy communities. This will enable low-income housing areas to reduce their energy costs and raise the value of their home. In addition, if combined with storage solutions this may reduce peak demands related to the vast increase of electric vehicles for private transport in urban areas. These regulations were planned to be in place by the end of 2022 but are still pending.

The COME RES findings indicate need for support to interested actors that want to establish RECs in terms of information, regulatory change and financial support. Existing financial support schemes have not been designed with energy communities in mind, and do not consider the specificities of RECs. The government provides investment support for household or commercial prosumers through the state-enterprise Enova. Private entities in the form of energy communities can apply for support alongside commercial actors. However, this is an important impediment for REC development since applications require a certain level of professionalism. The involvement of vulnerable households and the implications of community energy for the mitigation of energy poverty to enable a just and inclusive energy transition has not been given policy attention. Before the drastic increase in energy prices from winter 2021, energy poverty and high electricity costs have been addressed through living support for the most vulnerable households (but the threshold for getting the support is extremely high). Now there is a general electricity support for all households, which cover a share of the cost (about 80%) for consumption up to 5,000 kWh.

In Norway, in total three country desk meetings, two policy labs (round tables) and two thematic workshops were organised in the frame of COME RES. Norway was among the COME RES partner countries for which an extensive **analysis of barriers and drivers** has been carried out. Below we summarize some of the key observations and policy lessons from all those activities:

Table 7: Policy Lessons for Norway

<i>The different activities held by the Norwegian country desk were successful in gathering different stakeholder groups interested in establishing RECs and community-based energy solutions. Norway is a country that spans across different geographies, needs and preconditions regarding RECs: Energy transition in Arctic Svalbard; energy security and supply in Island communities, growth of local businesses in areas where expanding or upgrading transmission is costly as well as local energy production in cities where there is a rapid increase of electric vehicles that give new challenges for supply and flexibility of the electricity system. Therefore, there is much to learn from the large variation of perspectives and stakeholders that are relevant for RECs in Norway. Recent surges in electricity prices have also highlighted the need for new energy solutions concerning heating (most of heating in Norway is through electricity) through decentralised systems.</i>
<i>The COME RES findings show that there is a consensus that RECs can play an important role in enabling a more flexible and smart energy system, more renewable energy production and reducing</i>

⁴² See also https://www.nve.no/media/12625/forslag-til-forskriftsendring-deling-av-produksjon-3666137_1_1.pdf (in Norwegian).

grid costs. The majority of stakeholders consulted also stated that the government's main focus should not mainly be on large scale solutions. Furthermore, the main barriers noted were regulations that limit sharing and sale of self-produced electricity, as well as lack of political focus on national and local government level. The main measures emphasised by the stakeholders in the consultation survey was reduction of regulatory and bureaucratic aspects, access to systematic learning from pilot projects, support for capacity development from national or local government. Support schemes were mentioned as a fourth important measure.

The present energy crisis with unprecedented high electricity costs in Norway (Southern and Western part) have shown that local energy models are becoming increasingly relevant for local actors, but that there is uncertainty in terms of framework conditions and how to best integrate such models into the existing power system which is based on national cost-efficiency and public ownership. A change towards more decentralised supply will require that important institutions such as local authorities and grid companies take on new roles and need new resources in doing so. At present there is no formal process for providing resources, incentives or guidelines for this to happen.

Despite interest in community-based energy solutions in Norway, these are not mainly driven forward by potential REC members/owners or grassroot actors. Further, the climatic conditions require integrated and hybrid decentralised systems that are complex and with high investment costs (PV alone will also have disruptive aspects for the system). In order to promote RECs and social, economic and environmental benefits to local communities there is a need to specifically provide enabling frameworks for grassroot actors.

Taking into account the complexity of integrating community energy in Norway (in terms of climatic conditions, already existing renewable and mostly public owned central electricity system) there is a need to provide comprehensive and holistic knowledge concerning social, financial and technical dimensions, and how these are connected to promote RECs into practice. This also includes co-creating knowledge based on dialogue between different actors and decision-makers to avoid silos thinking or unfortunate consequences for individual industries, consumers and society.

5.6.2. Policy recommendations

National government

- Today's regulations and support schemes needs to be examined and adjusted to enable development of grassroot based renewable energy solutions that provide local benefits and is optimal for local energy needs. Norway should also address the requirement put on EU Member States concerning enabling frameworks for RECs. This would align Norway with the provisions for RECs contained in the RED II in a better way.
- The project findings show that the stakeholders consulted in Norway are less focused on low-income and vulnerable household's opportunities to participate in RECs or similar community

energy models. To ensure a just, inclusive and socially accepted energy transition, the national government should direct more focus on low-income and vulnerable households to participate on equal terms as other households. This could specifically be addressed in national support schemes (through Enova) that require high investment costs up-front. Also, the regulations underway that provide also housing cooperatives opportunities for becoming RECs are an important step towards a better inclusion. To ensure that also low-income and vulnerable households (in housing cooperatives or similar) take advantage of the extended plus-customer scheme, support measures in terms of dedicated information for reliable government sources and financial support dedicated for RECs need to be put in place.

Regional governments

- The findings from Norway point to the need for knowledge and capacity building concerning RECs in local authorities. Regional governments can provide incentives and support for this. Further, they may help in spatial and environmental planning necessary to REC development.
- The regional government level is in several cases an important source of financial support for community-based solutions that require innovative and integrated energy solutions that serve local energy needs, especially in rural and isolated communities. Regional governments should ensure that such financial support is available for grassroots actors and that learning from financed decentralised projects are made available to others.

Local governments

- The findings show that local governments play an important role in bringing relevant actors together to foster dialogue and collaboration. This is particularly important when local energy needs call for the integration of more complex hybrid systems and where the best models require that other actors such as grid companies or research institutions are involved. Taking such an active role can also enable municipalities and local government actors' opportunities to seek financial support for renewable and community-based solutions from a wider group of donors (research & development funds, regional government funds, Innovation Norway etc.).⁴³
- Local governments also may play an important role in providing local grassroots actors with financial support and thus in the long run develop smart, integrated solutions adapted to the local context and making local business sector more competitive (due to reduced energy costs and sustainable profile).
- Local governments may also play an important role as owners and managers of RECs and community-based energy solutions. This may provide lower energy costs and redistribution of these financial resources to services for their population. Furthermore, local governments taking such a role may also provide low-income and vulnerable households access to join RECs through social housing schemes etc.

⁴³ See also M. Vindegg, K. Standal (2022): Opportunities for local energy: Report on a case study of an energy initiative on Utsira (in Norwegian). <https://www.sum.uio.no/include/publikasjoner-media/rapporter/include-rapport-5-2022-lokale-energimuligheter.pdf>

5.7. Poland

5.7.1. Key policy lessons from COME RES

With regards to the transposition of the European legal framework for RECs, Poland is lagging behind the other COME RES countries. The same applies to the creation of an enabling framework, economic incentives and the consideration of RECs in the design of support scheme. Draft legislation aiming to transpose RED II includes only few amendments on 'energy clusters' but does not transpose the provisions for RECs. There is already a legal framework for 'energy cooperatives' in place, but existing regulations are not in compliance with the RED II. The Polish Renewable Energy Sources Act imposes several restrictions on energy cooperatives. These can be established only in the area of rural or rural-urban municipalities. Furthermore, there is a limitation regarding the installed capacity (10 MW) and a requirement that 70% of the cooperative's and its members' demand must be covered by the respective RES installation(s). Promising elements include a quantitative policy target for the development of 300 'sustainable energy areas' (energy cooperatives, energy clusters, other entities) to be established by 2030; and the planned pre-investment, investment and horizontal support for energy cooperatives, energy clusters and local governments that plan to create energy communities under the Polish Recovery and Resilience Fund.

In Poland, in total three country desk meetings, two policy labs (round tables) and two thematic workshops were organised in the frame of COME RES. Poland was among the COME RES partner countries for which an extensive analysis of barriers and drivers has been developed. Furthermore, the Polish project partner KAPE and several of the key stakeholders were actively engaged in the co-creation of regional action plan proposals for the target region Małopolska province. Below we summarise some of the key observations and policy lessons from all those activities.

Table 8: Policy Lessons for Poland

*The **policy lab** carried out in November 2022 revealed the following barriers for energy communities:*

- *Lack of a clear and appropriate legal framework for energy communities, including energy cooperatives;*
- *Lack of economic incentives and financial support discouraging (especially) local governments from engaging in the conceptual process of establishing REC;*
- *Regulations that limit the ability of RECs to sell surplus energy to the grid;*
- *Regulations that limit the ability of renewable energy communities to share self-generated electricity (e.g., between members, neighbouring properties);*
- *Problems with DSOs that block the connection of the plants owned by energy cooperatives to the electricity grid. DSOs also fail to disclose the grid's connectivity, causing stagnation in energy investments.*

There is a strong need for **complete and meaningful transposition** of the RED II and the IEMD as well as the creation of effective support mechanisms for RES and for RECs.

Energy communities and **collective self-consumption (CSC) schemes** should be effectively promoted as vehicles to increase energy security, reduce electricity bills and the risk of energy poverty. However, no specific measures promoting the participation of low-income and vulnerable households in RECs have been taken so far.

PV is the fastest-growing RES technology in Poland, especially on a micro-scale. This development is strongly stimulated by a dedicated **support scheme for prosumers** (net-metering scheme) and by additional programmes (mainly the “My Electricity” programme), giving an opportunity to receive investment support either in grant or loan form. However, comparable programmes for collective initiatives have been lacking so far.

The **stakeholder dialogues** carried out within the **Polish country desk** addressed, inter alia, the Investment Programme within the framework of the **National Resilience and Recovery Plan** dedicated to RES investments being realised by energy communities, energy clusters, energy cooperatives, collective and virtual prosumers, with particular emphasis on the role of local governments creating such local communities and energy communities. The programme will provide **pre-investment support, investment support** and **horizontal support** in the form of consultations, expertise, opinions, training, workshops and study visits. This Investment Programme can be considered as a **potentially strong driver** for the development of energy communities. One of the key conclusions of the desk discussions was that energy communities need “living” legal provisions and clear regulations for implementation and operation, along with financial support for, at least, the pre-investment stage in order to assess the potential benefits and viability of the investment.

It is of utmost importance to create an **effective enabling framework** for RECs, attractive support mechanisms, and above all, **viable business models**. This also requires **urgent investments in the modernisation and development of transmission and distribution grids**. Without this, there will be increasing problems with connecting new RES facilities. For the target region Małopolska province (in a mountainous area), a significant barrier is the insufficient capacity of the electricity grids.

Although some provisions are in place to remove administrative barriers and facilitate **cooperation between energy cooperatives and DSOs**, the activities of DSOs should be more transparent (e.g., about the technical conditions of distribution grid, see above).

Municipal authorities show generally great interest in forming energy communities. The barriers mentioned above and in particular the lack of attractive incentives and the continuously changing legal framework led to **passivity among local communities**, municipalities and civil society, thus hampering their engagement in RECs and the creation of respective business plans. Often these actors fear to lose the money invested.

5.7.2. Policy recommendations

National government

- Fully transpose the provisions for RECs and CECs laid down in the RED II and the IEMD. The concept of ‘energy cooperatives could represent a starting point for the development of a proper REC definition complying with the provisions of RED II.
- Establish an energy community incubator. Incubators will allow to select and test investment plans and calculate the return on investments to be made by RECs.
- Facilitate the grid connection for RECs and establish a public inventory of power grids to identify the potentials of grid connections for RECs (Responsibility: KAPE in cooperation with DSOs).
- Ensure that local governments have easier access to data on grid connection possibilities on their territory (Responsibility: Energy Regulatory Office URE, Transmission System Operator PSE, Ministry of Climate and Environment).
- Create tax exemptions and other financial incentives for the establishment of RECs. Since in the current energy supply system the benefits and cost reductions of energy communities are limited in terms of a market advantage, their social and environmental benefits should be supported through tax breaks, such as VAT reductions.
- Implement the planned programme providing **pre-investment support, horizontal support and investment support**.
- Establish guarantee funds for energy communities that seek repayable instruments for their investments.
- Define clear billing rules inside and outside the energy clusters.
- Remove existing restrictions which limit the operation area of energy clusters to only one county. This limitation inhibits clusters, for example, involving a city with county rights and a neighbouring county.

Regional governments

- Try to influence the regional energy mix by promoting the use of RES and the development of energy communities.
- Amend and update the provincial spatial development plans to maximize the potential for the development of renewable energy sources and energy communities. Insert a provision in the Law on Planning and Spatial Development to allow photovoltaic installations of up to 1,000 kW to be located on agricultural land constituting agricultural land of classes V, VI, VIz and wasteland without the need to obtain a decision on the agreement of development conditions.
- Make the energy transition including the development of energy communities a priority goal of provincial development strategies. Local energy plans need to be brought in line accordingly.

- Design appropriate financing instruments and promote the rational and responsible use of financial resources to support energy communities. This includes guarantee funds for RES investments of RECs.

Municipal governments

- Include municipal targets for/information on planned RECs in the respective municipal strategic and planning documents, e.g., the 'Assumptions for the Plan of Supply of Heat, Electricity and Gaseous Fuels', the Sustainable Energy and Climate Action Plans (SECAPs/SEAPs) and 'Low Carbon Management Plans.' Consider to integrate those key strategic documents into one single planning document.
- Expand the subsidies for environmental programmes and investments by municipalities. There should be more widespread promotional activities for the energy transition in general (especially energy commons) and programmes that finance investments in this area.
- Provide support for informational activities like conferences, trainings for local government officials and REC coordinators, particularly on legal issues and issues to be settled with the DSOs. Carry out campaigns to promote RECs among local government officials, SMEs and residents.
- Make efforts to cooperate with NGOs, which can support the activities of local authorities to a greater extent and will also have a positive impact on the building of civil society.
- Support the establishment of 'municipal energy officers' (among other things) to promote the development of RECs and identify possibilities to cooperate with energy communities.

5.8. Portugal

5.8.1. Key policy lessons from COME RES

Portugal is comparatively advanced regarding the transposition of the legal framework (definitions, rights, market activities) for RECs. However, most of the provisions for RECs have been literally transposed from the RED II and several indefinite legal terms need further specifications in order to enable proper functioning and market integration of RECs. While open and voluntary participation have been explicitly considered in the REC definition, effective control has not been properly transposed yet. Moreover, the REC definition does not address autonomy. RECs are explicitly entitled to produce, consume, store and sell renewable energy. Collective self-consumption schemes are possible and may use the public grid. Energy sharing is also possible, and RECs are entitled to exemptions/reductions of certain grid charge components. The most recent legislation also allows for energy sharing through the use of specific management systems, which enable the dynamic monitoring, control and management of energy, in real time, to optimise energy flows. Here, the creation of targeted guidance including technical requirements and main principles for REC operation could be highly valuable.

The enabling framework for RECs is still fragmentary. Lack of information and poor access to financing represent key barriers. The same applies for the burdensome and lengthy licensing procedures, despite

certain improvements which have been recently made. The measures taken towards the simplification of the licensing procedures provide a first step to alleviate the problem of administrative complexity. Also, the provision of dedicated support to RECs, through the creation of a “Self-consumption and RECs support office” can be assessed positively. A dedicated webpage and an illustrated guide to support the implementation of RECs have been recently made available by ADENE, the national energy agency. As in most other countries under scrutiny, integration of provisions for RECs into spatial planning and urban infrastructure is missing. The same applies to the transparent cost benefit analysis of distributed energy sources, which should be prepared pursuant to Article 22(3) of the RED II.

Support schemes for RECs are just being set up and access to financing is a major barrier. However, the recently released funding programme provides a promising step and might provide a good lever to stimulate investments in community initiatives.

In Portugal, in total three country desk meetings, two policy labs (round tables) and two thematic workshops were organised in the frame of COME RES. Portugal was among those COME RES partner countries for which an extensive analysis of barriers and drivers has been developed. Further, the Portuguese project partners together with several core actors of the country desk prepared a regional action plan proposal for the target region of Região Norte. Below we summarise some of the key observations and policy lessons from all those activities.

Table 9: Policy Lessons for Portugal

<i>The different activities organised by the Portuguese country desk were successful in gathering different stakeholder groups involved in the implementation of RECs in Portugal and fostering the discussion on how to develop an appropriate enabling framework, in line with the requirements from the RED II. The events also facilitated the dialogue between policy makers and different market actors (from local authorities to energy cooperatives), enabling the discussion on the alternative actions that may be taken under the process of transposition of the RED II.</i>
<i>The country desk discussions showed that there is still a need to specify key definitions and indefinite legal terms, including e.g., ‘energy sharing among community members. Despite the advancements regarding the definition of RECs, Portugal is still lagging behind in setting up an effective enabling framework that promotes and facilitates the development of RECs. There is also a need to create stable support schemes dedicated to the promotion of RECs.</i>
<i>The in-depth assessment of barriers and drivers for RECs carried out in the COME RES project identified the following regulatory, technical, economic and capacity-related barriers for RECs in Portugal:⁴⁴</i> <i>Regulatory barriers: The lack of a clear definition of key concepts as energy sharing and the difference between collective self-consumption and REC was mentioned as one of the main regulatory challenges for the implementation and operation of RECs, along with the</i>

⁴⁴ Standal, Aakre, Leiren, et al. (2022), see footnote 7.

regulatory uncertainty regarding the rules for connection with the grid and the applicable tax rebates.

- **Technical barriers:** The centralised management of the grid may prompt some challenges to the implementation of local energy initiatives, including RECs. The participants have also identified the delay in the roll-out of smart meters as a potential challenge to the deployment of energy community initiatives.
- **Economic and financing barriers:** The fact that RECs need to fulfil the same requirements as any other market actor to provide system services, including the payment of the global warranty, may be an obstacle to the participation of RECs in the market, even though this could be overcome by promoting aggregators. Alongside, the financing of RECs may be challenging, due to the risks involved in this type of initiatives, centred on collective investments and active participation of individual citizens.
- **Information gaps:** The lack of clear and accessible information may constitute a barrier to massive uptake of citizens in setting up and/or participating in RECs. Information on criteria for establishing a REC, key points on internal contracting rules, available funds and support mechanisms, among others, was mentioned to be essential to democratise the creation and participation in this type of initiatives.

During the preparation of a **regional action plan proposal** for the COME RES **target region Região Norte** in November 2022, the main barriers and enablers for REC development in Portugal identified in the in-depth assessment of barriers and drivers (see above) have been largely confirmed for **Região Norte**.

- **Complexity and lack of clarity** of existing regulation and provisions applicable to RECs and collective self-consumption, requiring the support of legal and technical experts to assess the viability and scope of the different initiatives;
- **Burdensome and lengthy registration and licensing processes.** Despite the recent efforts to simplify and accelerate the processes, these are still hampering the wide deployment of RECs, including the initiatives recognised as pilot projects;
- **Administrative barriers** associated with the design and operation of RECs, namely regarding the identification of members and the definition of internal rules. The need for professionalisation of citizens or entities who could be responsible for the establishment and management of RECs was confirmed as one of the main barriers;
- **Reduced knowledge and acceptance** of the concept by the society, due to the lack of concrete examples and the limited dissemination of good practices and lessons learned among local communities and other potential promoters of RECs.

Moreover, the consulted stakeholders considered the following as the most relevant **enablers**:

- *Provision of dedicated support, accompanying the different phases of implementation of a REC. This could include support in defining the concept, attracting members and implementing the project;*
- *Potential economic benefits, associated with the sale of electricity and/or the saving on electricity bills;*
- *Participation of local authorities or other locally based, trusted entities in the REC's development process, as a promoter, member, investor or other.*

Municipalities can play an important role, acting as leaders by example, promoters or facilitators. They can help to recruit potential REC members and identify potential investors. They may target the most vulnerable consumers and ensure that they have access to participate in RECs. They also may facilitate the implementation of REC initiatives, by promoting the gathering of individual citizens and local SMEs in a joint investment. They may develop REC initiatives by themselves and disseminate success stories. Therefore, the national government should aid municipal and other public authorities in order to facilitate and implement RECs.

5.8.2. Policy recommendations

National government

- Hold periodic information sessions with licensing authorities (or linked organisations) to clarify specific doubts of promoters and members of RECs regarding eligibility, scope of action, etc.. Develop a document with Frequently Asked Questions (FAQs) from the periodic sessions, which will be continuously updated, and will contain relevant information for potential promoters (National Energy Agency ADENE and the Directorate-General for Energy and Geology DGEG).
- Provide information and training to relevant stakeholders; develop specific training courses dedicated to local and regional authorities, so that they have the capacity to support citizens and local SMEs with RECs implementation (ADENE and DGEG).
- Disclose and disseminate the results of pilot projects, being successful or unsuccessful, in order to identify concrete drivers and barriers (Energy Services Regulatory Authority ERSE and Directorate-General for Energy and Geology DGEG).
- Provide dedicated support schemes to facilitate the access to finance, across the several stages of REC development (design, implementation and operation).
- Implement a programme to support municipal authorities in their role of promoter or facilitator of REC initiatives.

Local governments

- Disseminate the REC concept at the community level by entities that have already the citizens' trust. This dissemination can be achieved by implementation of concrete projects (small scale, and proof of concept) and dissemination of success cases.
- Create the role of (local) process manager, a person that would accompany potential REC promoters throughout the whole process – from the concept development to the operational phase. These managers are local technicians (from energy agencies, local authorities), with direct link with the regulatory authorities and licencing entities (Local authorities in cooperation with energy agencies and DGEG).
- Establish a local support desk for potential promoters of RECs, from concept development to financing, implementation and operation. These desks will be implemented in parallel with the development of a detailed guide for RECs, adapted to the local context (Local energy agencies in cooperation with Portuguese Association for Consumer Protection DECO).
- Create political commitment (and specific targets) for RECs implementation at the local and/or regional level.
- Conclude bilateral agreements for the purchase of RECs excess electricity, in order to ensure a stable business model and minimise the risk of investment.
- Develop targeted measures addressing the most vulnerable consumers and ensure they have access to participate in RECs;
- Facilitate the implementation of REC initiatives, by promoting the participation of individual citizens and local SMEs in a joint investment.

5.9. Spain

5.9.1. Key policy lessons from COME RES

Spain has an advanced regulatory framework for collective self-consumption (CSC) since 2015. In 2020, the national government introduced a definition of RECs which is mostly a literal transposition of the definition contained in the RED II, without any further specifications of essential indefinite legal terms (e.g., autonomy, effective control, proximity), rights, duties and possible market activities of RECs. Therefore, RECs are confronted with regulatory uncertainty and often use the legal framework for CSC. This means, however, that RECs can only use the low-voltage grid and cannot exceed a 500 m radius around the generation source.

The implementation of elements of the enabling framework for RECs, as defined by the RED II, is proceeding. Spain has made good use of additional funding sources, as e.g., the Recovery, Transformation and Resilience Plan to promote, support and develop RECs. Specific funding lines have been or are being developed and support different phases of REC development. Many regional and local authorities utilise ERDF funds to promote and develop RECs in their territories.

The Spanish government took the specificities of RECs into account in the design of its auction scheme for RES based electricity. Generally, as a pre-qualification requirement, participants in the auctions have to present, inter alia, a plan for local citizen participation. In recent auctions, special bidding windows have been created exclusively for ‘citizens-led, distributed PV generation projects’. To some extent, Spain can be regarded a showcase for the development of an integrated approach to support RECs.

Each administration level (national, regional, local) has its own action plans for promoting RECs. Regional and local support varies a lot, with some territories not receiving any kind of support (apart from the national one) and some others having very capable and engaged local and regional administrations (in terms of administrative, technical and financial support).

In Spain, in total three country desk meetings, three policy labs (round tables) and two thematic workshops were organised in the frame of COME RES. The Balearic and Canary Islands were part of those regions for which an extensive analysis of barriers and drivers has been developed in the frame of COME RES. Furthermore, the Spanish project partners together with several core actors of the country desk were engaged in the COME RES good practice transfer activities (domestic transfer of the model of the COMPTTEM energy community in Crevillent (Comunidad Valenciana) to the learning region Canary Islands. Moreover, Spanish COME RES partners in cooperation with core actors of the country desk co-created a regional action plan proposal for the target region of the Canary Islands. Below we summarise some of the key observations and policy lessons from all those activities.

Table 10: Policy Lessons for Spain

<i>The Thematic Workshops and Policy Labs as well as the work carried out for preparing the regional action plan proposal have provided insights of the prevailing barriers, but also possible ways of improving local conditions and the development of an appropriate enabling framework for RECs. Despite the conducive institutional climate of support and promotion for the development of RECs, stakeholders repeatedly stressed the need for urgent regulatory development to provide actors with the necessary legal certainty and investment security to undertake community energy projects. There is an urgent need to complement the legal and regulatory framework for RECs and to fully transpose the relevant provisions of the RED II. Several indefinite legal terms need to be concretised (e.g., proximity).</i>
<i>A proper legal and regulatory framework for energy sharing needs to be set up. Existing technical restrictions in terms of capacity caps, grid connection, or geographical boundaries prevent many actors including small businesses, industry or public authorities to utilize energy sharing and should be removed. The types of legal forms and entities that may be used to develop RECs need to be specified. A regulatory authority should be endowed with the power to oversee compliance with REC definition.</i>
<i>From the in-depth assessment of barriers and drivers carried out in the two Spanish COME RES target regions the following key lessons could be derived:</i>

- *Lack of associative and/or cooperative culture and tradition*
- *Poor access to information on energy communities*
- *Need for advice at different levels (e.g., public law: use and cession of municipal spaces, programming of project phases, regulation of the electricity sector, technical and market regulation in the energy sector)*
- *Need for better cooperation of RECs with the DSO*

Stakeholders taking part in the **policy labs** and in the COME RES **stakeholder consultation survey** indicated a number of further **barriers** inhibiting the development of RECs:

- *Lack of previous experience in public-private partnerships and other new initiatives, which are poorly rooted in the legal tradition of the target regions (the Balearic and Canary Islands).*
- *Lack of interest from different actors, be they public or private entities.*
- *Legal and administrative barriers related to the use of municipal public space for RES projects in small municipalities which cause delays in the processing of such projects,*
- *Territorial tension in the Balearic Islands due to the scarcity of developable areas as well as lack of human resources with the necessary training and technical skills in small municipalities.*
- *Excessive bureaucracy hampering permitting of projects, where the lack of harmonised/unified procedures in different regions and municipalities stands out as well as the lack of clarity in the information transmitted by the administration.*
- *Lack of pedagogical momentum and examples of RECs in the region that would help the partner to understand what the direct benefits of RECs could be and lead to the creation of new projects with replicability potential. To this end, local councils are a key lever.*
- *Difficult access to RECs for economically vulnerable people, who lack the resources/savings to make the necessary investments.*

In the two Spanish target regions, both of which are island regions, the territorial limitation calls for innovative solutions for the development of RECs. It is also widely acknowledged that local institutions need to make an intense effort to disseminate this type of initiative, given the general lack of knowledge. In this sense, a local dissemination initiative with great potential for replicability is currently being set up in the target region Canary Islands, which is supported by the Associations of Property Administrators. As main alternatives, stakeholders point toward the already built urban space (e.g., PV on the roofs of public buildings, parking, etc.), or profiting from marine renewable energies (e.g., offshore wind).

Specific lessons for the Canary Islands

- *Access to national support schemes for the creation of energy communities is essential.*

- *Need to develop regional support schemes for self-consumption of PV based electricity,*
- *Need to establish Green Offices of the Canary Islands (OVC) and other bodies at the island level, such as the Renewable Energy Office of the Cabildo of Tenerife, which facilitate access to information and provide individualised advice.*

5.9.2. Policy recommendations

National government

- Fully transpose the RED II and develop an elaborated normative framework, so that regulatory uncertainty for RECs is reduced.
- Inform the population in a more efficient and effective way about the energy transition and the concept of a REC, possibly through the creation of public energy advisory offices for citizens.
- Establish a bilateral dialogue process between electricity distributors and public entities to improve transparency on available connection points and their capacity (lack of a map).
- Empower SMEs based in local industrial or business parks for the development of RECs.
- Promote greater electrical/energy capacity at existing access and connection points.
- The acquisition of a declaration of public social interest, which prospective communities can apply for as a means to achieve priority for receiving local/regional funding for their initiative, in its current form has an excessive waiting time. As such, the process for requiring applications for this declaration ought to be streamlined.
- Promote tax exemptions (on VAT and IGIC – the Canary Islands special tax over consumption), for the installation of renewable energy communities.

National/regional/municipal governments

- Propose new administrative mechanisms to facilitate the leasing procedure of public lands and/or buildings' roofs to install RES technologies which may be used by RECs as the main source of electricity generation.
- Promote the further simplification of existing administrative procedures for collective self-consumption projects with power over 100 kW, adapting regional regulations to state regulations.
- In order to speed up administrative procedures in relation to RECs in city councils and local governments, it is recommended to provide specific training on RECs to public officials currently employed at regional and local level, as well as recruiting additional human resources with sufficient expertise.
- Encourage more proactive spatial planning at the regional and local levels in order to identify particularly appropriate spaces/areas which could develop into an energy community.

- Promote cooperation between local governments and financial institutions to create public or private-public contingency funds as collaterals for RECs when applying for loans; develop premiums for RECs (e.g., by eliminating usage fees for the low-voltage grid, bonuses for private distribution companies whose low-voltage grid is being used by RECs) and promote low interest loans.
- Introduce tax deductions and/or elimination of local tributes, including the Real Estate Tax (IBI) and the Tax on Construction, Installations and Works (ICIO).

6. Cross-country policy lessons and recommendations

- RECs have the potential to provide multiple answers to the various actual energy and climate crises. As such, RECs may contribute to stabilise energy costs/prices and reduce the risk of energy poverty, strengthen system resilience and energy security, reduce the need for investments in electricity grid extensions/reinforcements, create local added value and employment, increase social cohesion and democracy, and enhance local acceptance of RES projects. RECs should therefore become a cornerstone of any strategy to address the global energy and climate challenges. In particular, they should form an integral part of local sustainable development strategies.
- Governments should ensure a **full transposition** of the provisions for RECs laid down in the RED II. This includes not only transposition of the definition, rights and duties of RECs, but particularly the **creation of an enabling framework** for RECs pursuant to Art. 22(4) of the RED II and their **proper consideration in support schemes**.
- Governments should implement Article 22(3) of the RED II which obliges Member States to carry out an **assessment of barriers and potentials for the development** of RECs. They should use the information gained from this assessment to establish meaningful enabling frameworks for RECs that will remove the barriers for RECs to participate in the energy market without discrimination to other market actors.
- Governments should include the main elements of the enabling framework for RECs and of its implementation when updating their **integrated National Energy and Climate Plans** and preparing the **progress reports** pursuant to Regulation (EU) 2018/1999 (article 22(5)). Governments should report the transposition progress with regards to the enabling frameworks for RECs and set **concrete objectives** and **quantitative targets** for RECs. They are encouraged to take into account the quantitative targets of the **EU Solar Strategy**⁴⁵ which envisages to set up at least one renewables-based energy community in every municipality with a population larger than 10,000 by 2025. They may also take into consideration the examples

⁴⁵ COM (2022) 221

of other countries and regions which have set quantitative targets, like the Netherlands, Flanders, or Poland.

- The creation of an effective enabling framework for RECs can be regarded as a **multi-level governance** task.⁴⁶ It requires commitment and actions of policy makers at all levels of government (national, regional and local).
- Governments should **create a legal framework for collective energy consumption schemes and energy sharing**. They should **enable** and **incentivise** the implementation of these activities and remove administrative barriers. Incentives for energy sharing may include **reduced grid charges** or special **premiums for shared energy**. Governments should promote the implementation of pilot projects (see the case of Flanders).
- European legislation (RED II, Art. 22(4) explicitly asks Member States to create an enabling framework for RECs ensuring that, inter alia, the participation in RECs is **accessible to all consumers**, including those in **low-income** or **vulnerable households**. National, regional and local governments are encouraged to remove barriers discouraging the participation of low income and vulnerable households in RECs (including social/welfare policy related barriers; see also the EU recommendation on this matter below).
- National and regional governments are encouraged to establish **advisory services/one-stop-shops** which provide all necessary technical assistance for citizens, community energy initiatives, local authorities and SMEs. These may build upon already **existing intermediary structures** like national or regional **energy agencies** and related **competence centres**. Local Energy Scotland or the Coordination Centre for Energy Communities in Austria provide good examples for such support structures from countries not represented in COME RES.⁴⁷
- Governments should make sure that **tenants** can participate in collective energy consumption schemes and energy communities. They should also promote **landlord-to-tenant** electricity models and remove administrative barriers.
- Governments should provide **access to financing**, which is **tailored to the needs of RECs**, rather than only allowing RECs to apply for financing schemes which are also open to other market actors. Dedicated **citizen/community energy funds** which may be designed as revolving funds as in the Netherlands or Schleswig-Holstein (Germany) may provide unbureaucratic start-up financing to cover upfront costs of RECs for site analyses, (pre-)feasibility studies, legal/tax consultancy, environmental impact assessments etc.).

⁴⁶ M. Krug, et al. (2022), see footnote 34.

⁴⁷ Local Energy Scotland is a one-stop-shop for local energy needs. They offer advice to communities, businesses and other organisations as well as funding in all aspects of local, renewable energy. They administer the Scottish Government's Community and Renewable Energy Scheme (CARES). CARES offers a range of financial support and advice to community groups, organisations and businesses to get local energy projects up and running. CARES also supports communities interested in shared ownership of a renewable energy project, and communities that have been approached by commercial developers regarding community benefits packages. Their advice is free and impartial, and they provide support at every stage – from initial planning, through development and funding applications, right up to and beyond the launch (see <https://localenergy.scot/funding>, accessed on 09.02.2023).

- **Tailored funding support** should address different phases of REC development (pre-investment support, investment support, operational support). **Spain** provides a good showcase for such an integrated approach.
- National governments should develop support schemes for RES with targeted measures for RECs utilizing the provisions of the **revised State Aid Guidelines**⁴⁸ (e.g., exempt projects of RECs below respective capacity thresholds from competitive bidding and participation in auction schemes or create **specific bidding windows/tenders** exclusively for RECs or apply **social and other non-price criteria** when selecting the bids).
- **Rural energy communities** are energy communities established in rural areas and therefore bringing together stakeholders who live and operate in these realities (e.g., citizens, farmers, agriculture businesses, etc.). Due to their rural specificities, these communities face particular challenges and barriers, such as physical constraints and interconnectivity limits.⁴⁹ Thus, support schemes should reflect the different challenges and opportunities for rural vs urban/semi urban energy.
- National and regional governments should provide **regulatory and capacity-building support** to **public authorities** including **municipal authorities** in enabling and setting up RECs, and in helping authorities to participate directly (see RED II, Art. 22(4)). This includes legal and organisational advice, financial advice, advice on available support schemes and on public procurement rules.
- Simplify and streamline **administrative procedures** including permitting, grid connections etc. without compromising nature protection and biodiversity goals.
- Promote networking and **exchange/transfer of good practices** within and between countries. Having as many diverse and detailed best practices can serve as a strong enabler to supporting energy community initiatives.
- Accelerate the digitalisation of the energy system and enhance the roll-out/deployment of smart meters.
- Strengthen the **role of municipalities** and provide them instruments to promote and facilitate the development of energy communities.
- Municipalities are encouraged to **develop inventories of public and private roofs and open spaces** suitable for RES use (e.g., solar cadastres), Being **owners of municipal land and properties** (including roofs) municipalities are encouraged to offer/lease space to energy communities to install RES facilities including wind turbines, PV panels etc. Municipalities may

⁴⁸ See footnote 32.

⁴⁹ See the European Commission's Rural Energy Community Advisory Hub (RECAH) report 'Creating value and engaging citizens in the energy transition – Rural Energy Communities' https://rural-energy-community-hub.ec.europa.eu/system/files/2022-10/GD1_Rural-Energy-REPORT-FINAL_0.pdf

also apply **social and environmental criteria** when leasing land/roofs to RES developers requiring financial participation of citizens/local communities.

- Municipalities support the development of energy communities through their public procurement schemes (e.g., via the introduction of social and technical criteria when purchasing electricity and heat for public buildings).
- Where feasible, municipalities should use their competences in the field of **urban/spatial planning** to promote the development of RECs. They may designate areas for the use of RES and or require/reward procedural and financial participation of citizens and local communities.
- As **potential initiators, investors and members** of RECs, municipalities may act as “leaders by example” and thus help **create trust** in and **legitimacy** for energy community initiatives.
- Municipalities should support RECs by providing access to **financing tools**.
- Municipalities may facilitate the development of RECs by providing good practices and promoting networking.

7. Recommendations for European policy makers

7.1. Implementation of the recast Renewable Energy Directive (RED II)

- Ensure **full implementation** of EU legislation on RECs. The comparative assessment of the transposition progress in the nine COME RES partner countries⁵⁰ highlights important transposition gaps, although the deadline has already passed. Full transposition and implementation of existing EU legislation on RECs will be a precondition for empowering citizens to achieve their full potential in contributing to Europe’s move away from fossil gas. The Commission could support such full implementation by publishing **guidance/recommendations** on how to meet the participation/governance criteria of the energy communities’ definitions (e.g., proximity, effective control, autonomy) and clarify certain elements of the enabling frameworks (see next bullet points).
- According to the RED II⁵¹ Member States should take the specificities of RECs into account when designing their national support schemes for renewables. To match this requirement, the Commission’s **Climate, Energy and Environmental Aid Guidelines (CEEAG)** include several references to RECs, including the possibility for exempting 100% REC projects from tendering processes in order to get support, up to a certain threshold.⁵² DG Competition should provide

⁵⁰ See footnote 3.

⁵¹ Article 22(7) of the RED II.

⁵² See Section 4.1.3.5. paragraph 107 (iv).

guidance to further clarify several terms⁵³ and how certain provisions can be implemented. Also, under the Commission's response to the Inflation Reduction Act, particularly on State aid, it should simplify procedures to get state aid approval of schemes for RECs or raise threshold requirements for notification.

- Prioritise **accessibility of renewables for vulnerable, energy poor and low-income households** to ensure a just transition. As identified in the comparative assessment of the transposition progress in the nine COME RES partner countries,⁵⁴ several Member States are still lacking concrete policies to promote participation of low income and vulnerable households in RECs. The Commission should work together with Member States to promote such measures and incentivise RECs to alleviate energy poverty at the local level. The Commission is encouraged to review the implementation of an enabling framework for RECs on the national level through a more social lens.
- While the RED II contains mention of the importance to allow vulnerable households to participate in RECs, enabling frameworks tend to be designed in a manner which favour households to have the liberty to invest some of their disposable income into RECs in the first place. Social policy, in several Member States, is designed in a manner which requires recipients of social benefit payments to first liquidate their existing assets before investing. As a result, it becomes very unattractive for vulnerable households to participate in a REC despite the fact that many RECs offer low entry hurdles (sometimes as low as 100 Euros a share). While the EU's competences on social policy are limited, it would nevertheless be prudent to issue **guidance or recommendations** to Member States suggesting that the participation in RECs for vulnerable households (recipients of social benefit payments) becomes decoupled from the need to liquidate assets before investing in RECs in particular.

7.2. Proposals for a revised Renewable Energy Directive (RED III)

Following the Clean Energy Package provisions, the Renewable Energy Directive (RED II) is currently being revised in the context of the Fit for 55 Package. The EU institutions should take the following recommendations into account in the context of the ongoing trilogues in order to maximise the potential for citizens and their communities to contribute towards the achievement of the ambitious RES targets to be set at the EU level:⁵⁵

- Increase of ambition for the EU's 2030 renewable energy targets to at least 50%, supported by a long-term 100% renewables target and nationally binding targets.

⁵³ For instance, what could be further explained is the 30% weighting limit on the non-price criteria in tenders and the 100% REC projects requirement.

⁵⁴ See footnote 2.

⁵⁵ A detailed analysis of the RED III revision tasks in the context of the trilogue process can be found in the following policy paper: REScoop.eu (2022): The RED revision: How to maximise the potential for communities to contribute to local renewables production, <https://www.rescoop.eu/toolbox/the-red-revision-how-to-maximise-the-potential-for-communities-to-contribute-to-local-renewables-production>

- Maintain the existing provisions of Articles 2(16) and Article 22 of the RED II that define and refer to RECs, so that further complexity and confusion is avoided, and Member States devote adequate time to transpose the existing RED II provisions for RECs.
- Distribution and transmission operators should be capable of monitoring electricity flows in real-time, while system integration should acknowledge a larger role for district heating and cooling, particularly at the local level.
- Place more obligations on the Member States to monitor and map the development of energy communities. This will help to assess the success of transposition and support schemes.

Within the scope of the REPowerEU Plan, the Commission proposed further revisions to the RED II, which follow a different process and timeline. This process should deliver the following:

- Simplified, special procedures for RECs and renewable energy self-consumers to obtain grid connection, as well as provision of other technical assistance;
- More transparency and certainty for prospective projects, in particular through integrated multilevel planning and mapping to guarantee that the local potential for renewable energy production is assessed, communicated and harnessed;
- Support for the development of **national, regional and local policy objectives and targets** for the promotion of citizen and community-owned energy. Such objectives/targets can already be included in the **revised National Energy and Climate Plans**, but also at regional and local planning, including SECAPs.

7.3. REPowerEU Plan

With its 'REPowerEU Communication'⁵⁶, the European Commission also has laid out a plan to diversify away from Russian natural gas, which currently makes up more than 40% of Europe's entire gas consumption. To ensure an inclusive and local community-centred approach, we recommend that the Commission takes forward the following:⁵⁷

- Acknowledge and support local ownership of renewable energy production as a matter of securing energy supply. Both the assessment of potentials for RES community energy carried out in the COME RES target regions⁵⁸ and the CE Delft study measuring the potential of active citizens and energy cooperatives in the EU⁵⁹ showcase the vital role energy communities can undertake in renewable energy production and thus into guaranteeing local security of supply. We recommend that the Commission recognises local ownership of renewable energy production and supply as an organising principle of the electricity market, and as an indispensable aspect of securing energy supply.

⁵⁶ https://ec.europa.eu/commission/presscorner/detail/en/ip_22_1511

⁵⁷ On the topic, the REScoop.eu Manifesto provides a concrete response to the REPowerEU Plan: <https://www.rescoop.eu/news-and-events/news/a-repowereu-for-energy-citizens-manifesto>

⁵⁸ Laes et al. (2021), see footnote 6.

⁵⁹ B. Kampman, J. Blommerde, M. Afman (2016): The potential of energy citizens in the European Union. CE Delft. <https://cedelft.eu/publications/the-potential-of-energy-citizens-in-the-european-union/>.

7.4. Electricity Market Design legislative proposal

Moving forward, a general remark extracted from the current energy crisis is that **the way that the market works creates several barriers for citizens and smaller market actors and can be reinforced to allow them to participate in the market without discrimination**. However, implementing any kind of change to the energy market framework is a highly complex, political challenge which requires a lot of time and concerted action and calls for realistic deadlines. In order to support the role of citizen and community energy during the ongoing energy crisis, the Commission should include in its Electricity Market Design legislative proposal the following:⁶⁰

- Enshrine **democratic local ownership of renewable energy production and supply** as an **operative principle** of the electricity market. The Internal Energy Market should be oriented towards an objective to promote local production of renewable energy that can be matched as much as possible to local consumption (i.e., supply). Local communities, including citizens, public authorities and SMEs, should be supported to invest and take ownership in production and supply of local renewable energy. This will help shield households from volatile and unreasonably high wholesale market prices and directly contributes to developing a new solidarity between territories and uptake of storage, flexibility, power supply and other technologies that are capable of providing distributed energy resources (DER) to the grid.
- Clarify the **distinction between energy communities and their possible technical activities**, such as renewables self-consumption and electricity sharing. Energy communities are an organisational concept, and these activities are not specific to them. Other market players can engage in those activities, such as active consumers or energy companies. There has been confusion surrounding those concepts during the RED II and IEMD transposition process. The Electricity Market reform must make this distinction clearer, including through creating a stand-alone article for electricity sharing, separate from core provisions on energy communities. The legal clarity around this issue should also be a matter that will be checked by the Commission when examining the progress of national transposition of the provisions for energy communities.
- Further articulate rules to guarantee that energy communities are able to develop renewable electricity sharing activities. Currently, Member States only have minimal requirements on how they should set up national legal and regulatory frameworks to facilitate electricity sharing. It is not even concretely defined as a concept. The Electricity Market reforms should further **specify duties and obligations of DSOs to facilitate energy sharing**, prevent suppliers from unfairly charging consumers that participate in energy sharing, ensure administrative and regulatory support, and include more concrete rules to ensure that sharing is promoted in a way that incentivizes citizens to invest in shared local renewable energy production and a more flexible and efficient distribution system. **DSOs could also be required to include energy community and self-consumption in their network planning, and to make this information publicly**

⁶⁰ This section is based on a letter that was published recently on the topic by the EU Community Power Coalition: <https://communitypowercoalition.eu/2022/12/15/empower-citizens-to-take-ownership-of-their-energy-letter/>

and easily available to access. Network planning obligations could also be expanded to require allocation of a specific amount of grid capacity, while also there should be a standardised process for data energy collection and management to guarantee transparency.

- Acknowledge the right of energy communities and local authorities to engage in local renewable electricity supply **without becoming a fully regulated retail supplier**. Energy communities should be entitled to supply their members, in particular households, with their own local renewable energy without having to assume all the responsibilities of a retail supplier that operates across entire national markets. It should be possible for energy communities to also enter into **power purchase agreements** (i.e., long-term contracts) to supply members with 'at cost' renewable electricity. Another solution could also be the imposition of requirements on large suppliers to facilitate community supply. Further, local energy markets and peer-to-peer (P2P) trading can be incentivised by reducing the requirement for energy suppliers' involvement in mediating these transactions and payments. Experimenting with relaxing these requirements for new prosumer business models across the Union is therefore likely to expand citizens choices on how they engage with the energy transition rather than narrow them.
- Create more equal **access for energy communities and other active customers to the grid**. Grid connection capacity, both existing and planned, should ensure that non-professional market actors including energy communities are able to obtain a timely grid connection. Grid planning rules should be enhanced, while grid access procedures and connection costs should also incentivise energy communities to connect to the distribution grid, particularly those that are aimed for local consumption. This will ensure that less-resourced and less-professionalised market participants are not left out of being able to access hard-to-find grid capacity.
- Consider that high volumetric and fixed **network charges** hinder business models, which offer flexibility and disproportionally pass network costs onto non-prosumers. Adopting capacity based, locational and dynamic network charging can reward business models, which enable flexibility, collective self-consumption and reduce the overall costs of integrating RES.

7.5. General recommendations

Finally, we would like to highlight some **overarching recommendations** for the EU level:

- **Acknowledge and support local ownership** of renewable energy production as a matter of securing energy supply, making sure that RECs are part of the solution, especially in times of energy crisis.
- Place **greater emphasis** on the potential of RECs **to provide added value to regional development**. Having already launched the Rural Energy Community Advisory Hub (RECAH), it would be wise to highlight the importance of supporting RECs within the framework of the **LEADER programme**. This is because the basic premise of RECs (local value creation / ownership / participation) is very similar to the principles governing Local Strategies implemented by Local Action Groups (LAGs). Currently, LAGs are often formed between multiple municipalities within a certain region. There are several examples on how RECs have been formed between several municipalities in order to increase regional value creation, albeit not necessarily related to regional development strategies. Therefore, promoting and connecting the establishment of inter-municipal RECs could be highlighted as an attractive option to consider leading up the next EU funding period when new LAGs will be established and funding under the LEADER programme will be sought.
- **Strengthen** the role of the **Energy Communities Repository** and **Rural Energy Community Advisory Hub**. Networking and exchange/transfer of good practices within and between countries should be promoted. Having as many diverse and detailed best practices can serve as a strong enabler to supporting energy community initiatives (and could better feed into a meaningful scorecard with more precise recommendations).
- **Place further emphasis** on the **benefits of collaboration between RECs and local/regional authorities**, particularly through **public procurement**; several COME RES cases have shown the good track-record of municipalities in introducing **(social) criteria** into their procurement practices to either procure electricity from RECs or to offer concession rights for public spaces. The Commission, particularly the Directorate General for Internal Market, Industry, Entrepreneurship and SMEs, is encouraged **to provide guidance to Member States and sub-national authorities on how public procurement incl. concession procedures**, can be facilitated in a risk-free manner. It is clear that there exists a general friction between the EU's commitment to citizen-led, local energy projects and the need to uphold the rule of the EU single market and competition rules. The Commission is encouraged to make the promotion of energy communities through public procurement a key part of the activities organised by **the Green Public Procurement (GPP) Helpdesk** especially in relation to the GPP Criteria for Electricity.

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9. Annex

Table 11: Key legal concepts and definitions contained in RED II and IEMD

Term	Definition
Renewable energy community <i>RED II, Article 2(16)</i>	“A legal entity: (d) which, in accordance with the applicable national law, is based on open and voluntary participation, is autonomous, and is effectively controlled by shareholders or members that are located in the proximity of the renewable energy projects that are owned and developed by that legal entity; (e) the shareholders or members of which are natural persons, SMEs or local authorities, including municipalities; (f) the primary purpose of which is to provide environmental, economic or social community benefits for its shareholders or members or for the local areas where it operates, rather than financial profits”
Citizen energy community <i>IEMD, Article 2(11)</i>	“A legal entity that: (a) is based on voluntary and open participation and is effectively controlled by members or shareholders that are natural persons, local authorities, including municipalities, or small enterprises; (b) has for its primary purpose to provide environmental, economic or social community benefits to its members or shareholders or to the local areas where it operates rather than to generate financial profits; (c) may engage in generation, including from renewable sources, distribution, supply, consumption, aggregation, energy storage, energy efficiency services or charging services for electric vehicles or provide other energy services to its members or shareholder”
Renewables self-consumer <i>RED II, Article 2(14)</i>	“A final customer operating within its premises located within confined boundaries or, where permitted by a Member State, within other premises, who generates renewable electricity for its own consumption, and who may store or sell self-generated renewable electricity, provided that, for a non-household renewables self-consumer, those activities do not constitute its primary commercial or professional activity”
Jointly acting renewables self-consumer <i>RED II, Article 2(15)</i>	“A group of at least two jointly acting renewables self-consumers in accordance with point 2(14) who are located in the same building or multi-apartment block.”

The definition of RECs contains a number of indefinite legal concepts. These are further explained in Table 12.

Table 12: Explanation of indefinite legal terms in the definition of RECs in RED II (Art. 2(16))⁶¹

Term	Description
Legal entity <i>Reference: RED II, Article 2(16)a</i>	A REC must be a legal entity. Recital 71 of the RED II states that Member States have the discretion to choose the form of legal entity: “<i>The specific characteristics of local renewable energy communities in terms of size, ownership structure and the number of projects can hamper their competition on an equal footing with large-scale players, namely competitors with larger projects or portfolios. Therefore, it should be possible for Member States to choose any form of entity for renewable energy communities, provided that such an entity may, acting in its own name, exercise rights and be subject to obligations.</i>”
Open and voluntary participation <i>Reference: RED II, Article 2(16)a</i>	Recital 71 of the RED II states that participation in RECs “<i>should be open to all potential local members based on objective, transparent and non-discriminatory criteria</i>”. Voluntary participation should be understood as ensuring shareholders or members of RECs the right to leave the REC.⁶²
Autonomy <i>Reference: RED II, Article 2(16)a</i>	Recital 71 of RED II states that “<i>To avoid abuse and to ensure broad participation, renewable energy communities should be capable of remaining autonomous from individual members and other traditional market actors that participate in the community as members or shareholders, or who cooperate through other means such as investment.</i>” REScoop.eu and ClientEarth suggested how autonomy should be interpreted: “<i>...Autonomy is meant to ensure that the [REC] is owned and controlled jointly by its members, rather than by a single member or a small group of members. Specifically, autonomy supports democratic internal decision making so that all members are adequately represented (regardless of their amount of investment). Autonomy is also about guaranteeing economic and financial autonomy, meaning that business partnerships with traditional market actors should not undermine the community’s decision-making independence.</i>”⁶³
Effective control <i>Reference: RED II, Article 2(16)a</i>	Besides Article 2(16)a, effective control is not further specified in RED II, and it is up to Member States to define how effective control is to be understood.⁶⁴ REScoop.eu and ClientEarth suggest that “<i>control refers generally to a situation in which a particular member or shareholder within a legal entity (company, natural person, or local authority) wields significant influence over the management or decision-making situation, based on their voting power or shares held. In other words, a company is ‘controlled’ if there is a group of shareholders that bring together enough shares (e.g., a majority, or a significant minority) to give that group a decisive voice in managing the company.</i>”⁶⁵

⁶¹ These explanations are taken from the recitals of the directive and from guidance developed by COME RES partner REScoop.eu, the European Federation of Citizen Energy Cooperatives, in cooperation with ClientEarth. (REScoop.eu, ClientEarth, 2020, Energy Communities under the Clean Energy Package. Transposition Guidance. Retrieved from <https://www.rescoop.eu/uploads/rescoop/downloads/Energy-Communities-Transposition-Guidance.pdf>; accessed on 14.02.2023)

⁶² Ibid., page 21.

⁶³ Ibid., page 31.

⁶⁴ Ibid., page 25.

⁶⁵ Ibid., page 25.

Term	Description
Proximity <i>Reference: RED II, Article 2(16)a</i>	According to RED II, effective control must be held by “shareholders or members that are located in the proximity of the renewable energy projects that are owned and developed by that legal entity”. Member States have the discretion to adapt and define the concept according to national and regional contexts.⁶⁶ REScoop.eu and ClientEarth note that the term “should be generally understood as the geographical scope in which the members or shareholders that effectively control the REC should be located (e.g., reside). Emphasis is given to geographical proximity because of its substantial added value in generating local acceptance of renewable energy projects.”⁶⁷
Eligibility to participate in RECs <i>Reference: RED II, Article 2(16)b</i>	RED II states that natural persons, SMEs or local authorities, including municipalities are entitled to participate in RECs. SMEs are further defined in Article 2(8) of the RED II: “SME’ means a micro, small or medium-sized enterprise as defined in Article 2 of the Annex to Commission Recommendation 2003/361/EC”, where the category of SMEs “is made up of enterprises which employ fewer than 250 persons and which have an annual turnover not exceeding EUR 50 million, and/or an annual balance sheet total not exceeding EUR 43 million.”⁶⁸ Thus, RED II puts restrictions on the size of companies eligible to participate in RECs. In addition, REScoop.eu notes that Article 22(1) of the RED II gives Member States the discretion to limit the participation of companies that are already active in the energy sector.⁶⁹
Environmental, economic or social community benefits <i>Reference: RED II, Article 2(16)c</i>	RED II states that the primary purpose of RECs is “to provide environmental, economic or social community benefits for its shareholders or members or for the local areas where it operates, rather than financial profits”. RECs must have a non-commercial purpose.⁷⁰ RED II does not provide any further specifications of environmental, economic and social community benefits. REScoop.eu provides examples of environmental (e.g., increased local production of RES), economic (e.g., local development) and social community benefits (e.g., energy democracy).⁷¹

RED II, Article 22(2) states:

Member States shall ensure that renewable energy communities are entitled to:

- (a) **produce, consume, store and sell** renewable energy, including through renewables power purchase agreements;
- (b) **share**, within the renewable energy community, renewable energy that is produced by the production units owned by that renewable energy community, subject to the other requirements laid down in this Article and to maintaining the rights and obligations of the renewable energy community members as customers;

⁶⁶ PROSEU, 2020, Transposition Guidance for citizen energy policies. Retrieved from https://proseu.eu/sites/default/files/Resources/PROSEU_Transposition%20Guidance%20for%20REDII%20and%20EMD.pdf; accessed 14.02.2023.

⁶⁷ RESCOOP.eu, Client Earth 2020, page 26.

⁶⁸ Commission Recommendation 2003/361/EC of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises (OJ L 124, 20.5.2003, p. 36).

⁶⁹ RESCOOP.eu, Client Earth 2020, page 23.

⁷⁰ See RESCOOP.eu, Client Earth 2020 page 19-21 for a discussion.

⁷¹ RESCOOP.eu, Client Earth 2020, page 20.

- (c) **access all suitable energy markets** both directly or through aggregation in a non-discriminatory manner.

Referring to (b) on energy sharing, Recital 71 of the RED II, further explains “Renewable energy communities should be able to share between themselves energy that is produced by their community-owned installations. However, community members should not be exempt from relevant costs, charges, levies and taxes that would be borne by final consumers who are not community members, producers in a similar situation, or where public grid infrastructure is used for those transfers.”

Member States have to transpose the definitions, rights, obligations of RECs laid down in RED II. The directive contains several additional obligations for the Member States. Article 22(3) requires that Member States shall “carry out an assessment of the existing barriers and potential of development” of RECs.

Furthermore, Member States “shall provide an enabling framework to promote and facilitate the development” of RECs (Article 22(4)). Table 2 provides an overview of the key elements of such an enabling framework.

Table 13: Minimum requirements for an enabling framework to promote and facilitate the development of RECs

Elements of an enabling framework (RED II, Art.22(4))
The framework shall ensure, inter alia, that: (a) unjustified regulatory and administrative barriers to renewable energy communities are removed; (b) RECs that supply energy or provide aggregation or other commercial energy services are subject to the provisions relevant for such activities; (c) the relevant distribution system operator (DSO) cooperates with RECs to facilitate energy transfers within RECs; (d) RECs are subject to fair, proportionate and transparent procedures, including registration and licensing procedures, and cost-reflective network charges, as well as relevant charges, levies and taxes, ensuring that they contribute, in an adequate, fair and balanced way, to the overall cost sharing of the system in line with a transparent cost-benefit analysis of distributed energy sources developed by the national competent authorities; (e) RECs are not subject to discriminatory treatment with regard to their activities, rights and obligations as final customers, producers, suppliers, DSOs, or as other market participants; (f) the participation in the RECs is accessible to all consumers, including those in low-income or vulnerable households; (g) tools to facilitate access to finance and information are available; (h) regulatory and capacity-building support is provided to public authorities in enabling and setting up RECs, and in helping authorities to participate directly; (i) rules to secure the equal and non-discriminatory treatment of consumers that participate in the REC are in place.

Moreover, in Article 22(7), RED II requires that Member States shall “*take into account the **specificities of renewable energy communities** when **designing support schemes***⁷² in order to allow them to compete for support on an equal footing with other market participants.” Recital 26 of RED II specifies that Member States should ensure that RECs can participate in available support schemes on an equal footing with large participants. To that end, Member States “*should be allowed to take measures, such as providing information, providing technical and financial support, reducing administrative requirements, including community-focused bidding criteria, creating tailored bidding windows for renewable energy communities, or allowing renewable energy communities to be remunerated through direct support where they comply with requirements of small installations*”.

⁷² Support schemes have been defined in RED II as “*any instrument, scheme or mechanism applied by a Member State, or a group of Member States, that promotes the use of energy from renewable sources by reducing the cost of that energy, increasing the price at which it can be sold, or increasing, by means of a renewable energy obligation or otherwise, the volume of such energy purchased, including but not restricted to, investment aid, tax exemptions or reductions, tax refunds, renewable energy obligation support schemes including those using green certificates, and direct price support schemes including feed-in tariffs and sliding or fixed premium payments*” (Article 2(5)).

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