COME RES

Advancing Renewable Energy Communities

Deliverable 7.1

COMPARATIVE ASSESSMENT OF ENABLING FRAMEWORKS FOR RECs AND SUPPORT SCHEME DESIGNS

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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

With the 'Clean Energy for all Europeans' package the European Commission intended to put consumers 'at the heart' of EU energy policies. The recast of the Renewable Energy Directive (RED II) acknowledged the importance of energy communities for the energy transition. It includes new provisions for renewable energy communities (RECs) empowering them to participate in the energy market. By 30 June 2021, Member States were requested to transpose the definition of RECs, their rights and duties and develop enabling frameworks. Furthermore, Member States shall take into account the specificities of RECs when designing support schemes in order to allow them to compete for support on an equal footing with other market participants.

This document, Deliverable 7.1, analyses the progress in transposing and implementing the provisions contained in RED II that apply to RECs in the nine COME RES countries, namely Belgium (Flanders), Germany, Italy, Latvia, the Netherlands, Norway, Poland, Portugal and Spain. The aim of the report is to provide an updated and detailed review of the enabling frameworks for RECs as specified in Art. 22(4) of RED II and to scrutinise the extent to which the analysed countries consider the specificities of RECs when designing support schemes for renewable energy sources, pursuant to Art. 22(7) of RED II.

In addition to the qualitative assessment, the COME RES partners carried out a quantitative assessment of the transposition performance. This covers three sections: (1) definition, rights and market activities of RECs, (2) key elements of enabling frameworks pursuant to RED II Art. 22(4) and (3) the consideration of REC specificities in support scheme designs and other economic incentives. The individual country reports and the calibration table can be found in the annex of this report.

Methodologically, the individual country policy assessments are mainly based on desk research, particularly analysis of legal documents, including the integrated National Energy and Climate Plans (NECPs), and secondary literature. They also integrate observations and interim findings of the country desk events in the COME RES partner countries. This report takes into account the policy developments until 15 July 2022.

Progress and performance of transposition varies considerably among the analysed countries. Thus, **Belgium (Flanders)** and **Italy** have made the most progress in transposing the definitions, rights, obligations and market activities of RECs. **Portugal** and **Spain** have also made good progress, but there are still several key provisions which are not transposed or specified yet. In **Latvia**, amendments to relevant laws containing key provisions of RECs and citizen energy communities (CECs) have been adopted in July 2022. These amendments provide a general framework; many details have to be worked out by subsequent governmental regulations. Although in **Germany** ownership of renewable energy installations by individuals or communities has a long tradition, the previous Federal government failed to timely and properly transpose the RED II and its provisions for RECs. Under the new government, the transposition process and the creation of an enabling framework gained momentum, but important transposition gaps still remain (e.g., energy sharing). In the **Netherlands**, only a draft legislation exists

and merges RECs and CECs into one concept. Most criteria of the RED II definition of RECs are covered in the draft legislation. In **Poland**, transposition is lagging behind compared to other COME RES countries. In **Norway**, the EU Directives do not automatically apply, but rather depend on negotiations between the EU and the EEA/European Free Trade Association (EFTA). Currently, RED II is still under review by the EEA/EFTA. In spite of some positive developments in the field of collective self-consumption at the building/block level, much work is still necessary to transpose the requirements of RED II.

Formal compliance with the provisions of RED II and literal transposition of the key principles and criteria ("copy and paste" approach) is by far not sufficient to effectively promote and facilitate the development of RECs. The RED II contains many indefinite legal concepts that have to be 'filled with life and 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 those indefinite legal terms, the national provisions for RECs might turn out as a barrier or enabler for RECs.

Besides definitions and acknowledgements of specific market activities, the creation of an effective enabling framework 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 countries under scrutiny has developed an enabling framework to promote and facilitate the development of RECs that would fully or largely comply with the minimum requirements listed in RED II. In most countries, enabling frameworks are still underdeveloped or fragmentary. However, the implementation of enabling frameworks is progressing in almost all countries, albeit with different commitment, pace, and support. Among the countries analysed, **Italy, the Netherlands,** and **Spain** appear to be the most advanced countries in this respect.

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1. Introduction and purpose of the report

Currently, at least two million people in the EU are involved in over 7,700 energy communities. Energy communities have contributed to 7 % of nationally installed capacities, with an estimated total renewable capacity of at least 6.3 GW. On a conservative estimate, they have invested a total of at least 2.6 billion EUR.[1]

With the 'Clean Energy for all Europeans' package the European Commission intended to put consumers 'at the heart' of EU energy policies. The recast of the Renewable Energy Directive (RED II) acknowledged the importance of energy communities for the energy transition. It includes new provisions for renewable energy communities (RECs) empowering them to participate in the energy market. Member States have to transpose definitions, rights and duties and develop enabling frameworks. Further, Member States shall take into account specificities of RECs when designing support schemes in order to allow them to compete for support on an equal footing with other market participants. The deadline for transposing the provisions for RECs expired on 30 June 2021.

Deliverable 7.1 analyses the progress in transposing and implementing the provisions contained in RED II that apply to RECs in the nine COME RES countries, namely Belgium (Flanders), Germany, Italy, Latvia, the Netherlands, Norway, Poland, Portugal and Spain. The aim of the report is to provide an updated and detailed review of the enabling frameworks for RECs, as specified in Art. 22(4) of RED II and to scrutinise the extent to which the analysed countries consider the specificities of RECs when designing support schemes for renewable energy sources, pursuant to Art. 22(7) of RED II.

The deliverable builds upon, updates and extends the **legal gap assessments** contained in the COME RES Deliverable 2.1, "Assessment report on technical, legal, institutional and policy conditions", which was published in February 2021.[2]

2. EU legal framework[3]

The European Union's 'Clean energy for all Europeans package' (in the following 'Clean Energy package') introduced different types of self-consumers and energy communities as new actors in the energy market.[4] These are defined in two directives, the recast of the EU Renewable Energy Directive (RED II) and the Internal Electricity Market Directive (IEMD). RED II came into force in December 2018, followed by the IEMD in July 2019. Besides the definitions of energy communities, the directives also

[1] European Commission (2021): State of the Energy Union 2021 – Contributing to the European Green Deal and the Union's recovery (pursuant to Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action Brussels, 26.10.2021 COM (2021) 950 final.
[2] Standal, K. et al. (2021): Assessment report on technical, legal, institutional and policy conditions. COME RES Deliverable 2.1. Retrieved from https://come-res.eu/fileadmin/user_upload/Resources/Deliverables/COME_RES_D2.1__Assessment_report_FINAL.pdf.
[3] This section is mainly based on Standal et al. (2021), see footnote 2.
[4] European Commission (2019): Clean Energy for All Europeans. Publications Office of the European Union.

introduced a legal framework supporting the development of citizens' active participation and collective energy actions in energy markets.

The EU provided Member States with the definitions of two concepts, namely 'Renewable Energy Communities' (RECs) and 'Citizens Energy Communities' (CECs), but also recognised other categories of collective energy initiatives.

The recast of the Electricity Market Directive, which defines 'active consumers' and 'citizen energy communities' (CECs) was expected to be transposed[5] by the Member States by the end of December 2020. The transposition of RED II, defining 'renewables self-consumption' and 'renewable energy communities' (RECs) was to be finalised by the end of June 2021. Although these deadlines have already expired, the transposition is still in progress in many Member States.

The EU legal framework for energy communities contains many indefinite legal terms leaving the transposition of numerous details to the national level. These include governance issues, such as effective control and autonomy, or the specification of physical boundaries. The EU does not provide further guidance also on the question how to integrate energy communities in the energy system and market. However, there have been supplementary initiatives such as the establishment of the 'Energy Community Repository' and the 'Advisory Hub for Rural Energy Communities' which the Commission launched to further facilitate the development of citizen and renewable energy communities.

This Deliverable follows the definitions of renewable energy communities (RECs) and citizen energy communities (CECs) introduced at the EU level by the recast of the Renewable Energy Directive (2018/2001/EU) (RED II) and the Integrated Electricity Market Directive (2019/944/EU) (IEMD), respectively, which focuses on communities' capacity to generate, consume, store and sell renewable energy (RED II, Article 22; IEMD, Article 16, cf. Table 1).

Table 1. Key legal concepts and definitions contained in RED II and IEMD

Term	Definition
Renewable energy community *RED II, Article 2(16)*	"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"

[5] See also Box 1.

Term	Definition
Citizen energy community *IEMD, Article 2(11)*	"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 *RED II, Article 2(14)*	"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 *RED II, Article 2(15)*	"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."

Table 2 provides further explanations for a number of indefinite legal terms referring to the concept of REC. 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.[6]

Table 2. Explanation of key terms in the definition of RECs in RED II (Article 2(16))

Term	Description
Legal entity *Reference: RED II, Article 2(16)a*	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: "*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*."

[6] 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 14.08.2022.

Term	Description
Open and voluntary participation *Reference: RED II, Article 2(16)a*	Recital 71 of the RED II states that participation in RECs "*should be open to all potential local members based on objective, transparent and non-discriminatory criteria*". Voluntary participation should be understood as ensuring shareholders or members of RECs the right to leave the REC.[7]
Autonomy *Reference: RED II, Article 2(16)a*	Recital 71 of RED II states that "*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*." REScoop.eu and ClientEarth suggested how autonomy should be interpreted: "…*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*."[8]
Effective control *Reference: RED II, Article 2(16)a*	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.[9] REScoop.eu and ClientEarth suggest that "*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*".[10]
Proximity *Reference: RED II, Article 2(16)a*	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.[11] 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."*[12]
Eligibility to participate in RECs *Reference: RED II, Article 2(16)b*	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*

[7] Ibid., page 21.
[8] Ibid., page 31.
[9] Ibid., page 25.
[10] Ibid., page 25.
[11] 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 14.08.2022.
[12] RESCOOP.eu, Client Earth 2020, page 26.

Term	Description
	annual turnover not exceeding EUR 50 million, and/or an annual balance sheet total not exceeding EUR 43 million."[13] 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.[14]
Environmental, economic or social community benefits *Reference: RED II, Article 2(16)c*	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.[15] 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).[16]

In Recital 70, the RED II acknowledges the benefits of RECs and highlights the importance of ensuring that RECs can compete on an equal footing with other market participants: "*The participation of local citizens and local authorities in renewable energy projects through renewable energy communities has resulted in substantial added value in terms of local acceptance of renewable energy and access to additional private capital which results in local investment, more choice for consumers and greater participation by citizens in the energy transition. Such local involvement is all the more crucial in a context of increasing renewable energy capacity. Measures to allow renewable energy communities to compete on an equal footing with other producers also aim to increase the participation of local citizens in renewable energy projects and therefore increase acceptance of renewable energy.*"

While not part of the definition of a REC (RED II, Article 2(16)), in terms of activities, RED II (Article 22(1) and Article 22(2)) establishes the rights of both consumers and of RECs:

RED II Article 22(1) stipulates:

Member States shall ensure that final customers, in particular household customers, are entitled to participate in a renewable energy community while maintaining their rights or obligations as final customers, and without being subject to unjustified or discriminatory conditions or procedures that would prevent their participation in a renewable energy community, provided that for private undertakings, their participation does not constitute their primary commercial or professional activity.

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;*

[13] 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).
[14] RESCOOP.eu, Client Earth 2020, page 23.
[15] See RESCOOP.eu, Client Earth 2020 page 19-21 for a discussion.
[16] RESCOOP.eu, Client Earth 2020, page 20.

(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;*

(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 RED II further specifies "*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."*

RED II also contains several 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)). In

Table 3, we listed the minimum requirements that such enabling frameworks should fulfil.

Table 3. Minimum requirements for an enabling framework for RECs

Term	Description
Enabling framework *Reference: RED II, Article 22(4)*	"*Member States shall provide an **enabling framework to promote and facilitate the development of renewable energy communities**. That framework shall ensure, inter alia, that:* *(a) unjustified regulatory and administrative barriers to renewable energy communities are removed;* *(b) renewable energy communities that supply energy or provide aggregation or other commercial energy services are subject to the provisions relevant for such activities;* *(c) the relevant distribution system operator cooperates with renewable energy communities to facilitate energy transfers within renewable energy communities;* *(d) renewable energy communities 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) renewable energy communities are not subject to discriminatory treatment with regard to their activities, rights and obligations as final customers, producers, suppliers, distribution system operators, or as other market participants;* *(f) the participation in the renewable energy communities is accessible to all consumers, including those in low-income or vulnerable households;* *(g) tools to facilitate access to finance and information are available;*

Term	Description
	(h) regulatory and capacity-building support is provided to public authorities in enabling and setting up renewable energy communities, and in helping authorities to participate directly; *(i) rules to secure the equal and non-discriminatory treatment of consumers that participate in the renewable energy community are in place."*

Pursuant to the Governance Regulation (EU) 2018/1999, which is part of the Clean Energy Package, Member States were required to provide a summary of the policies and measures under the enabling framework for RECs in their National Energy and Climate Plans.[17] The main elements of the enabling framework shall also be part of the respective progress reports (RED II Article 22(5)).

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**[18] 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"*.

Article 22(6) stipulates that Member States may provide for RECs "*to be open to cross-border participation*".

Although not explicitly requested by RED II, the Governance Regulation (EU) 2018/1999 in Article 20 encourages Member States "*to specify additional national trajectories and objectives for RECs. These include dedicated quantitative targets for RECs.*"

[17]The Governance Regulation mandates Member States to adopt a 10-year integrated national energy and climate plan (NECP) for the period 2021 to 2030, mapping out how they will contribute to reaching the EU's energy and climate targets for 2030. These plans have to be updated regularly. The NECPs can be found at https://energy.ec.europa.eu/topics/energy-strategy/national-energy-and-climate-plans-necps_en#final-necps.

[18] 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)).

Box 1: Transposition of EU legislation[19]

Transposition is the process of incorporating EU directives into the national laws of EU Member States. Unlike regulations and decisions, directives are not directly applicable throughout Member States but require national laws to incorporate their rules into national legislation. The Member States must adopt these national measures by a deadline, which is specified in the directive. Member States must notify their national implementing measures to the European Commission. The Commission:

- examines the text to ensure that it meets the aims of the directive;
- ensures that the transposed law is implemented and meets the required deadline(s).

The Commission may take a case to the Court of Justice of the European Union when the Member State did not adopt national measures to transpose the directive or has taken measures, but the Commission considers that the measures are not satisfactory. If the Court agrees with the Commission on the infringement and the Member State does not comply with the judgement, then the Court may impose a penalty payment or lump sum at the request of the Commission.

3. Methodology

As explained above, the purpose of this report is to assess the progress of transposing and implementing the key provisions of RED II that apply to RECs in Belgium (Flanders[20]), Germany, Italy, Latvia, the Netherlands, Norway, Poland, Portugal and Spain. The report synthesises key findings of nine individual country assessments, which compile information collected by the COME RES partners and reflects the transposition status by 15 July 2022.

These country assessments are based on a common template, which has been developed by the task leader Freie Universität Berlin in close cooperation with the project partners. Partners were asked to assess the transposition process in general, the legal definitions of RECs and their compliance with RED II, key market activities including production, consumption, storage and sales of renewable energy, energy sharing, the enabling frameworks to promote and facilitate the development of REC, quantitative/qualitative policy targets, and the extent to which RECs are considered in support schemes. Furthermore, project partners provided brief overall assessments on policy performance and policy needs. Table 4 illustrates the elements of the analytical framework.

[19] https://eur-lex.europa.eu/EN/legal-content/glossary/transposition.html

[20] Due to the federal state structure in Belgium, transposition of RED II and IEMD including the provisions for energy communities is up to the three regions. In our report, we focus on the legal and policy framework of Flanders.

Table 4. Elements of the analytical framework

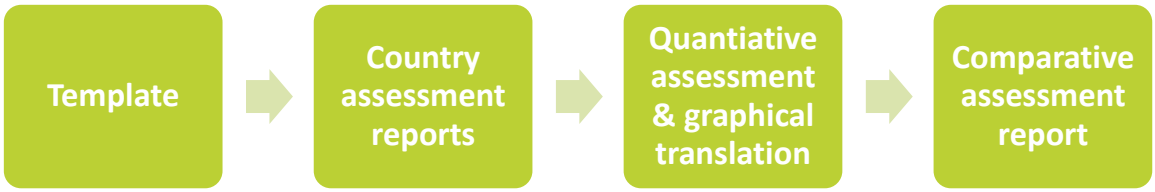
Item	Sub-items
Definitions of RECs/Governance	• Transposition process - State of the art • Legal form • Open/voluntary participation • Membership • Effective control and proximity • Autonomy • Primary purpose • Sector coverage
Market activities	• Key market activities (produce, consume, store and sell renewable energy) • Ownership/operation of electricity distribution grids • Collective self-consumption • Energy sharing
Provisions for RECs in spatial planning (RED II, Art.15(3))	
Provisions for RECs in design of urban infrastructure etc. (RED II, Art.15(3))	
Assessment of barriers and potential for development of RECs by Member States (RED II, Art. 22(3))	
Core elements of enabling framework (RED II, Art.22(4)	• Removal of unjustified barriers • Fair, proportionate and transparent procedures (including registration and licensing procedures) • Measures providing that the relevant DSOs cooperate with RECs to facilitate energy transfers within RECs • Preferential network charges or any other preferential treatment with regard to network charges/tariffs • Transparent cost-benefit analysis of distributed energy sources • Non-discriminatory treatment with regard to REC activities, rights and obligations • Accessibility of RECs for all consumers, including low-income or vulnerable households • Tools to facilitate access to finance • Tools to facilitate access to information • Provision of regulatory and capacity-building support to public authorities
Political objectives/targets for RECs	
Dedicated support schemes for RECs/community energy (operational support)	
Consideration of specificities of RECs in RES support scheme designs	
Other accompanying support measures for RECs	

Overall assessment of existing policies and measures by project partners	• Assessment of existing policies and measures • Assessment of policy needs • Promising policies and measures

In addition to the qualitative assessment, the COME RES partners carried out a quantitative assessment of the transposition performance. This covers three sections: (1) definition, rights and market activities of RECs, (2) key elements of enabling frameworks pursuant to RED II Art. 22(4) and (3) the consideration of REC specificities in support scheme designs and other economic incentives. The quantitative assessment is based on a 0-5 rating system, which has been calibrated for each individual criterion. Although we have tried to objectify the quantitative assessment by means of a standardised calibration table, the self-assessments are still fairly subjective. Nevertheless, the graphical translation allows for a rough picture of the transposition status by 15 July 2022. The qualitative country assessments and the calibration table can be found in the annex of this report.

Methodologically, the country policy assessments are mainly based on desk research, particularly on the analysis of legal documents including the integrated National Energy and Climate Plans (NECPs)[21] and secondary literature. They also integrate observations and interim findings of the country desk events in the COME RES partner countries.

Figure 1. Methodological steps



This report adds to the growing body of research assessing and comparing the transposition of provisions for energy communities. This includes analyses of single countries[22] and comparisons of two[23] or of a larger number of countries.[24]

[21] The COME RES "Assessment report on technical, legal, institutional and policy conditions" (see footnote 2), provides a detailed assessment of the final NECPs and their provisions for RECs in the countries represented in COME RES.
[22] see for example for Austria: Fina, B.; Fechner, H. (2021): Transposition of European Guidelines for Energy Communities into Austrian Law: A Comparison and Discussion of Issues and Positive Aspects. Energies, 14, 3922; for Italy: Candelise, C.; Ruggieri, G. (2020): Status and Evolution of the Community Energy Sector in Italy. Energies, 13, 1888.
[23] see for example Spasova, D. et al. (2021): Building a Common Support Framework in Differing Realities—Conditions for Renewable Energy Communities in Germany and Bulgaria. Energies, 14, 4693; Krug, M. et al. (2022). Mainstreaming Community Energy: Is the Renewable Energy Directive a Driver for Renewable Energy Communities in Germany and Italy? Sustainability, 14, 7181. https://doi.org/10.3390/su1412718.
[24] see for example Frieden, D. et al. (2021): Are We on the Right Track? Collective Self-Consumption and Energy Communities in the European Union. Sustainability, 13, 12494; Biresselioglu, M.E. et al. (2021): Legal Provisions and Market Conditions for Energy Communities in Austria, Germany, Greece, Italy, Spain, and Turkey: A Comparative Assessment. Sustainability, 13, 11212.

Several Horizon 2020 projects have carried out similar assessments (e.g., ASSET, COMPILE, DECIDE, PROSEU, SCORE). Also, the BRIDGE report within the Task Force for Local energy communities reviewed the level of transposition of RED II and IEMD.[25] Needless to say that all of these assessments provide temporary insights. Several analyses focus on specific issues (e.g., definitions), whereas in-depth assessments of the enabling frameworks are still scarce. REScoop.eu has set up an online transposition tracker which assesses the progress of the transposition of REC and CEC definitions in the European Member States and provides updated country-specific information.[26] Also the Community Power Coalition has recently set up a similar Transposition Tracker Tool.[27]

4. Key findings of the comparative assessment

4.1. State of the transposition process

COME RES covers a wide spectrum of countries with different levels of community ownership of renewable energy infrastructure. In some countries, like **Belgium, the Netherlands, or Germany**, energy cooperatives and other forms of energy communities have been existing long before RED II came into effect. Also, **Italy** - at least in some regions – has a tradition of cooperative ownership in the energy sector. In other countries, like **Portugal** and **Spain**, the creation and growth of energy communities has been much slower. In **Latvia**, **Norway,** and **Poland**, energy communities and energy cooperatives are in an embryonic stage. This means that in some of the countries under scrutiny, a legal framework for energy communities was already pre-existing, whereas in others RED II represented an opportunity to build a legal and policy framework from scratch.

At the time of writing (August 2022), in most countries under scrutiny a legal framework for RECs transposing the provisions of RED II has been established, albeit with varying degrees of detail. Nonetheless, in most countries, transposition gaps have been detected. Several governments (e.g. Latvia, Portugal, Spain) have transposed the EU definition of RECs more or less literally. In many cases, further legislation is under development to specify indeterminate legal concepts, like ‘effective control’, ‘proximity’, or ‘energy sharing’.

In **Belgium**, each of the three regions has to transpose the provisions on RECs and CECs and to set up regional regulatory and enabling frameworks. Further, there will be a transposition of RECs and CECs at the federal level. In the Flemish Region, the RECs and CECs definitions have been introduced in legislation in June 2021 by amending the Flemish Energy Decree of 8 May 2009 and the Energy Decision of 19 November 2010.

In **Germany**, a legal definition of ‘citizen energy companies’ exists since 2017. It is included in the Renewable Energy Sources Act. This definition has been adjusted in July 2022 by the new federal government in order to align it with the provisions of RED II for RECs. So far, both the previous and the

[25] Hannoset, A. et al. (2019): Energy Communities in the EU—Task Force Energy Communities; European Commission: Brussels, Belgium.
[26] See https://www.rescoop.eu/policy.
[27] See https://communitypowercoalition.eu.

current government refrained from introducing a separate legal term transposing the concept of CECs, as defined in the IEMD.

In **Italy**, the transposition of the RED II followed a two-step approach. The first, 'experimental' step introduced the concept of RECs, although with a very limited scope. The legal foundation for this was Law 28/02/2020 n. 8 (GoI 2020), which converted the Government Decree no 162/2019 (so-called 'Milleproroghe') into national law. In the second step, taking the lessons learned from the first phase into account, the definition of RECs was re-adjusted and partly broadened by the Legislative Decree 199/08.11.2021.A definition of CECs was introduced by the Legislative Decree 210/08.11.2021.

In **Latvia**, an overall legal framework for RECs and CECs has been adopted by the Parliament in July 2022 by amending the Law on Energy and the Electricity Market Law. The amended Law on Energy contains the legal definition for one single concept, called "energy community". Furthermore, it includes the definitions of REC and 'electricity energy community' (CEC), whereas the amended Electricity Market Law contains provisions referring to activities, rights and duties of 'electricity energy communities', 'electricity sharing' and 'electricity sharing agreement'. These amendments will come into force on 1 January 2023. The Government is planning to adopt complementary regulations in 2023.

In the **Netherlands,** an overarching definition for 'energy community' (encompassing both RECs and CECs) is contained in a new draft Energy Law (replacing the current Electricity and Gas Law dating from 1998). This new Energy Law establishes the legal foundations for the energy transition in the Netherlands and incorporates important elements of the Dutch Climate Agreement (2019). So far, energy communities had not yet been explicitly recognised as a specific legal entity active on the energy market, but this will change with the adoption of the new Energy Law, which is currently (15 July 2022) under revision by the Council of State.[28] By the end of 2021, 623 local citizen energy initiatives were active in the Netherlands. Almost all of them fit the definition of a REC.[29]

Norway has a long tradition of publicly owned electricity production from renewable energy sources (RES-E). Community owned small-scale RES-E production has increased in recent years. Since the country is not a member of the EU, but only of the European Economic Area (EEA), EU directives do not automatically apply, but rather depend on individual procedures and negotiations between the EU and the EEA/European Free Trade Association (EFTA). RED II is still under review by the EEA/EFTA. Neither RECs nor CECs have been formally introduced in the national legal framework to date.

In **Poland**, a legal definition of RECs that would comply with the provisions of the RED II is still lacking**.** The same applies to CECs as defined in the IEMD. So far, there are two draft legislations (UC74; UC99). Autonomy is not specified for either, nonetheless, the Cooperative Law states the above mentioned rule for cooperative control. Proximity, effective control, and autonomy are therefore addressed vaguely and insufficiently in the draft legislation. Definitions of 'energy clusters' and 'energy cooperatives' are included in current legislation. 'Energy clusters' include elements of energy communities but are

[28] The Council of State (*Raad van State*) is a constitutionally established body and has two primary tasks that are carried out by two separate divisions. The Advisory Division, as its name implies, advises the government and Parliament on legislation and governance, while the Administrative Jurisdiction Division is the country's highest general administrative court. For more information see https://www.raadvanstate.nl/talen/artikel/

[29] https://www.hieropgewekt.nl/lokale-energie-monitor

broader. Energy cooperatives "operate" according to the Polish Renewable Energy Sources Act (RES Act).

In **Portugal**, the concepts of RECs and CECs have been formally introduced in the national legal framework. The legal definition of RECs has been introduced by Decree Law nº 162/2019, from 15 October 2019, and recently revised by the Decree Law nº 15/2022 from 14 January 2022. The latter provided some clarification regarding the concept of proximity and the conditions for energy sharing. The legal definition of CECs has been introduced by the Decree Law nº 15/2022 from 14 January 2022.

In **Spain**, RECs have been introduced and are regulated by the Royal Decree-Law 244/2019 of 5 April 2019 and Royal Decree-Law 23/2020 of 23 June 2020. CECs have not been transposed into law yet.

4.2. Overall compliance of national definitions with EU legislation

In **Belgium (Flanders)** and **Italy** existing legal definitions of RECs are mostly in compliance with the definition provided in Article 2(16) of the RED II. Governments of those countries used mostly a literal transposition of the RED II definition. However, further specifications of several indeterminate legal concepts are necessary.

In **Belgium (Flanders)**, the Energy Decree transposing the energy communities' definitions frames "energy communities" as a single concept, with CECs and RECs representing slightly different notions of this concept. In this sense, Flanders has attempted to ensure coherency around the concept. The type of legal entity that a REC will take has not been defined yet, but most likely only cooperatives and non-profit organisations comply because of the criteria stipulated in the RED II. The majority of the RECs that are currently registered on the website of the Flemish regulator of the electricity and gas market are renewable energy cooperatives, members of the Flemish Federation of Energy Cooperatives *REScoop Vlaanderen*. The national legislation is compliant with the RED II: Participation is open and voluntary; CECs are open to everyone (e.g., citizens, local authorities, SMEs and larger companies), whereas RECs are limited to citizens, local governments, SMEs (without energy services being the main commercial activity). For both CECs and RECs, the main purpose is to offer environmental, economic or social benefits. Profit is not a main goal but is allowed if subordinate to the main purpose.

In **Italy**, the definition of RECs covers most of the criteria contained in the RED II definition, including autonomy and effective control, which were not addressed in previous legislation. Updated legislation increased a previous capacity cap of 200 kW to 1 MW for each REC plant. Also, the geographical proximity criterion has been modified under the new legislation (now it is interpreted as the connection under the same medium/high voltage substation).

In **Germany**, **Latvia**, **the Netherlands**, **Portugal** and **Spain** legislation that at least partly complies with the provisions of RED II is in place or under way. Several items have not been addressed yet and further specifications are needed.

In **Germany**, the legal term of 'renewable energy community' has not been literally transposed. Since 2017, the Renewable Energy Sources Act (RESA) includes the definition of "citizen energy companies" and the present government decided to continue using this term. In July 2022, the definition was

adjusted in order to bring it in line with the RED II and simultaneously to avoid misuse. However, the purpose of RECs as defined in Art. 2(16c) has no explicit equivalent in German legislation except some mentioning in the annotations of the draft law. Furthermore, the definition of 'citizens' energy companies' has a limited scope of application (wind energy, PV) and there is no explicit equivalent neither for other renewable energy sources (RES), nor for the heating/cooling sector. The wording of citizen energy company resembles the legal term of citizen energy community defined in the IEMD, although it is meant to transpose the REC. Already the initial definition of 'citizen energy companies' from 2017 contained specific principles referring to autonomy, effective control and proximity. These have been recently adjusted. Except for electricity generation, the rights and possible activities of RECs specified in Art. 22(1) and (2) have not been explicitly defined in German law (although implicitly many activities are allowed). Energy sharing is only theoretically possible and there is no corresponding regulatory framework in place yet.

In **Latvia**, the legal definition of RECs is contained in an amendment to the Law on Energy. The Government is planning to issue complementary regulations by 28 February 2023. These shall further specify items like proximity and matters to be dealt with by statute (e.g., use of profits, internal rules that determine relations among the members/shareholders of a REC, between RECs and other market actors as well as community registration requirements). The amended Electricity Market Law contains definitions such as 'electricity sharing', 'electricity sharing agreement' and 'flexibility services'. The law specifies the activities, rights and duties of energy communities in the electricity sector. By 28 February 2023, the government will issue regulations determining the procedures of electricity sharing. By 30 June 2023, the Ministry of Economics, in co-operation with the Ministry of Environmental Protection and Regional Development, will elaborate and publish guidance for the formation of energy communities, including recommendations for public entities/authorities regarding the provision of support for energy communities and their participation in such entities.

In the **Netherlands**, draft legislation merges both REC and CEC definitions into one single concept, called an 'energy community'. Criteria of the EU definition reflected in the Dutch definition of an 'energy community' are:

- An energy community carries out activities in the energy market, meaning any activity is technically possible.
- Effective control by natural persons, local authorities or SMEs.
- Voluntary and open participation and exist.

Under the overall definition, RECs are defined as energy communities that develop renewable energy projects (all technologies are covered, incl. biogas projects). In addition to the general stipulations applying to an energy community, 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 **Portugal**, many provisions on RECs, including the definition, have been literally transposed from RED II, however, in most cases without any further specifications. RECs are defined as a collective person, profit or non-profit, based on the open and voluntary participation of their members, partners and/or shareholders. REC shareholders and members may include natural persons, SMEs and/or local authorities. Open and voluntary participation has been considered in the definition whereas effective control and proximity have not been properly transposed yet. The REC definition does not address autonomy.

In **Spain**, Article 4 of the Royal Decree-Law 23/2020 defines RECs as legal entities based on open and voluntary participation, autonomous and effectively controlled by partners or members who are located in the vicinity of the renewable energy projects that are owned by said legal entities. Partners or members are individuals, SMEs or local authorities, including municipalities, and the primary purpose is to provide environmental, economic or social benefits to their partners or members or to the local areas where they operate, rather than financial gains. The definition of RECs is more or less a literal transposition of the EU definition, without any further specifications on the indefinite legal terms.

In **Poland**, legislation on energy cooperatives already existed before RED II took effect. The government has drafted legislation on CECs (UC74). Draft legislation transposing selected provisions of RED II include a revised definition of 'energy clusters' (UC99). According to the existing definition provided in the Polish Act on Renewable Energy Sources (RES Act) an 'energy cooperative' is an administrative unit whose legal form is stipulated in the Cooperative Law. Energy generation is not limited to a certain technology, but only intended for the need of the cooperatives and their members. However, existing regulations for energy cooperatives are not in compliance with RED II, as the RES Act imposes considerable restrictions on energy cooperatives. These can be established only in the area of rural or rural-urban municipalities. Further, there is a limitation regarding the installed capacity (<10 MW) and there is a requirement that 70% of the demand of the cooperative and its members must be covered by the RES installation. Due to these restrictions and other prevailing barriers, there has been only low interest in the population so far in setting up energy cooperatives, resulting in only two registered 'energy cooperatives'.

The concept of 'energy clusters' was already introduced in 2016 through amendments to the Polish Act on Renewable Energy Sources (RES Act). 'Energy clusters' have been defined as civil law agreements between different entities including a local government, which aim at becoming energy efficient regions through a more effective use of local RES. Draft legislation (UC 99) includes only very general provisions and envisages that energy clusters fulfil the definitory criteria referring to the purpose of a REC (to provide economic, social, and and/or environmental benefits). However, energy clusters are no legal entities. As a legal entity, energy cooperatives might in principle be better suited as an equivalent for RECs, provided the various limitations energy cooperatives face will be removed and the definition adjusted to the requirements of the RED II. Draft legislation also envisages that only natural persons, legal persons and local government units can become members of a CEC or 'energy cooperative', whereas participation in an 'energy cluster' is broader, open and voluntary.

In **Norway**, RED II is still under review by the EEA/EFTA. Neither RECs nor CECs have been formally introduced in the national legal framework to date.

4.3. Key elements of the REC definitions

Legal forms

In **Italy**, RECs face specific constraints with respect to the generation and distribution of profits. Several legal entities are allowed, provided they are non-profit entities. In **Latvia**, the legal form of a REC can be an association, foundation, cooperative society, a commercial company - partnership or capital company - or other civil liability society. If a REC is a capital company, the statutes of the company should provide that a) the goals defined in companies' statutes correspond to the goal (purpose) of the REC and the capital company performs the economic activities of REC defined by the Law, and b) the profit shall not be paid as dividends but shall be re-invested to meet the objectives defined by the statutes. In **the Netherlands**, all legal persons are allowed. Existing renewable energy cooperatives fall under the definition of a REC. In **Poland**, legislation transposing the concept and definition of RECs is still missing. The draft law UC 99 transposes several provisions of RED II but does not transpose the definition of RECs. It contains only a revised definition of 'energy clusters'. Existing 'energy clusters' are no legal entities but based on a civil law agreement. Legislation transposing the concept of CECs has been drafted in UC 74. Furthermore, there exists a legal definition of 'energy cooperatives' (RES Act). According to the definition provided in the RES Act an 'energy cooperative' is an administrative unit whose legal form is stipulated in the Cooperative Law. For an energy cooperative the respective legal form is either a cooperative or an agricultural cooperative.

In the other analysed countries where RECs have been legally defined, no specific legal form has been prescribed for RECs.

Open/voluntary participation and membership

Open and voluntary participation for RECs has been explicitly ensured in **Belgium (Flanders)**, **Italy**, **the Netherlands**, **Portugal**, and **Spain**. In most analysed cases, membership in a REC has been restricted to natural persons, SMEs and local authorities, as envisaged by the RED II. In **Italy**, for private companies there is an additional requirement that their participation in a REC must not constitute the main commercial and/or industrial activity and energy production and supply must not represent their primary activity. In **Belgium (Flanders)**, membership is open to citizens, local governments and SMEs. For the latter, membership is restricted to SMEs for which energy is not the main commercial or professional activity. In the **Netherlands**, any legal entity composed of members or shareholders (that does not have the production, storage or sale of energy as its main commercial activity) can be part of an 'energy community'. In addition to this general rule, RECs can stipulate in their statutes that only natural persons, local governments or SMEs can be members or shareholders of a REC.

Effective control

In most analysed countries, control is defined in the same general way as in the RED II without any further specifications. In **Germany**, the recently adopted amendments to the Renewable Energy

Sources Act of July 2022 envisage that at least 75% of the voting rights must be held by natural persons living in a postcode area that lies completely or partly within a radius of 50 kilometres around the plant. In **Latvia**, REC members or shareholders participate in making decisions that provide decisive influence or actual control in the energy community, in particular with regards to a) ownership rights, b) rights or legal transactions that give decisive influence in terms of the composition of the REC governing body, votes or the decisions made by that body. The Government is going to adopt additional regulations addressing the relationships among the members/shareholders of the energy community.

Proximity

Several governments decided to specify proximity rules with follow-up legislation (e.g., **Latvia**, the **Netherlands**). In **Belgium (Flanders)**, participation shall be limited on the basis of technical or geographical proximity, considering the objectives or activities of the REC. The Flemish Government may by help of by-laws lay down criteria to define the concept of technical or geographical proximity, as holds true for other criteria that have not been defined with the primary legislation. In **Germany**, proximity has been defined geographically (see above, effective control). In **Italy**, all members of a REC must be connected to the same high/medium voltage substation. Hence, compared to initial regulations which envisaged connection to the same low/medium voltage substation, the concept of proximity has been broadened and more citizens and SMEs can now become members of the same REC. There is also a technical restriction, as capacity limits have been increased from 200 kW to 1 MW. In **Portugal,** proximity is defined in a differentiated manner in the range between <2 km in the low voltage grid (or same substation) and <20 km in the extra high voltage grid (or same substation). However, proximity rules are not directly related to effective control as envisaged by RED II, but to membership. In **Spain**, there is a geographical boundary of 500 m around the generation source and certain technical limitations (connection to the low voltage grid, maximum installed capacity of 100 kW). Although these restrictions formally apply to collective self-consumption schemes, many RECs use the legal framework for collective self-consumption enshrined in RD 244/2019 due to the unclear legal framework for RECs (see below).

Autonomy

In most analysed cases, autonomy has been included as a governance principle of RECs, but legislation does not contain any specifications of what it means at the national context. In **Germany**, a member or shareholder of a 'citizen energy company' is not allowed to hold more than 10% of the voting rights. In the **Netherlands**, an explanatory memorandum accompanying draft legislation identifies the one-person-one-vote principle for cooperatives and mentions potential for setting maximum shares for certain entities/groups of entities, or further distribution of voting rights.

Primary purpose

In most countries under scrutiny, the primary purpose has been explicitly defined following almost literally the wording of the RED II (*"to provide economic, social or environmental benefits to its members/shareholders and/or to the community where the energy community is active"*) without further specifications. In **Germany**, the annotations to the recently amended Renewable Energy Sources Act

include some references to the respective RED II formulations. Legislation in **Norway** and **Poland** does not make any references to the primary purpose of a REC. In Poland, legislation has been drafted to transpose some provisions of RED II. Although the respective draft law UC 99 does not transpose the RED II provisions for RECs, it contains a revised definition of 'energy clusters'. Their primary purpose is to provide economic, social or environmental benefits to the parties to the agreement or to increase the flexibility of the electricity system."

Sector coverage

In most countries under scrutiny, the legal definition of RECs explicitly covers the heating/cooling sector and renewable gases. In **Germany**, the amended definition of citizens' energy companies explicitly refers only to wind energy and PV (ground-mounted and rooftop), but not to any other forms of renewable energy, let alone the heating/cooling sector or renewable gases (although there are many practical examples for energy communities being active in in these fields).[30] In **Spain**, although not explicitly included in the legal definition of RECs, certain tender specifications define activities that can be carried out by RECs, and explicitly mention renewable gases, e-mobility and energy efficiency.

4.4. Selected market activities of RECs

Production, consumption, storage and sales of renewable energy

In **Belgium (Flanders), Italy, Latvia, the Netherlands, Portugal** and **Spain**, RECs are or will be explicitly entitled to produce, consume, store and sell renewable energy basically replicating the wording of the RED II. In **Germany**, the amended definition of citizens' energy companies explicitly refers to the generation of electricity from wind energy and PV (ground-mounted and rooftop). However, in practice, energy communities engage in numerous other activities including consumption, storage and sales of renewable energy. Hence, at least implicitly, these activities are allowed. In **Poland**, the existing definition of energy cooperatives refers only to the "production" of electricity, biogas or heat. We would like to point out that RECs have not been formally transposed yet and existing energy cooperatives do not fulfil most of the RED II requirements for RECs.

Ownership/operation of electricity distribution grids

Only in a few countries, RECs are explicitly or implicitly allowed to own and operate electricity distribution networks. In **Germany**, **Italy**, **Portugal** and **Spain**, we found examples of energy communities including energy cooperatives that practically own and operate electricity distribution grids.

Collective self-consumption (level of buildings/apartment blocks)

Regarding collective self-consumption (CSC), RED II in Article 2(15) refers to "*the same building or multi-apartment block*". Some Member States like **Portugal** and **Spain** allow CSC schemes using the public grid. **Spain** has already an advanced framework for CSC allowing to share electricity among customers. CSC schemes are limited to a radius of 500 m around the generation source and need to

[30] See for instance the numerous 'bioenergy villages', where energy cooperatives and other forms of energy communities own/operate bioenergy installations and/or connected local district heating networks. For more information https://bioenergiedorf.fnr.de/bioenergiedoerfer/was-ist-ein-bioenergiedorf.

be located in the same grid segment below the same low voltage transformer station. For CSC schemes, no grid fees are charged for the electricity exchanges within the scheme, although VAT and other taxes apply. Many RECs use the legal framework for CSC enshrined in RD 244/2019. To promote CSC in Spain, the National Self-Consumption Roadmap introduced a number of measures to facilitate decision making by homeowners' associations on CSC systems in residential buildings. At regional level, several autonomous communities and municipalities provide incentives to the establishment of self-consumption schemes through grants, subsidies and tax exemptions.

In **Belgium** (Flanders), CSC is possible but all grid fees, taxes, VAT, public obligations, etc. must be paid. In **Italy**, RECs receive a refund of about 10€ /MWh based on the energy produced by the plant and used in collective consumption, plus a reward in form of a bonus of 100€/MWh. However, these amounts are subject to change as the legal framework evolves. Also, in **Latvia, Poland**, and **Portugal,** CSC schemes are possible. Draft legislation exists in the **Netherlands** and in **Norway.** In **Norway**, the government announced that new regulations are expected to be implemented by the end of 2022[31], allowing sharing of electricity among household/entities with separate meters within the same property. The proposition is now in the consultation process and the timeline of implementation depends on the input received from the energy sector and other relevant stakeholders. According to the proposed regulations, energy sharing will be promoted through exemption of grid charges and electricity fees concerning self-produced electricity. **In Germany**, CSC pursuant to the RED II has not been legally defined and still faces several barriers, although some obstacles have been recently removed. For instance, the renewable energy surcharge (*EEG-Umlage*) has been recently abolished and, as a result, there will no longer be any levies on self-consumption and direct deliveries behind the grid interconnection point.

Energy sharing

In **Belgium (Flanders),** energy sharing is allowed, and a regulatory framework has been set up. In the agreements that the members/participants conclude with a CEC or REC referring to their rights and duties, the distribution key for energy sharing has to be included. For every kWh shared, all the grid fees, taxes, VAT, public obligation fees, etc. will have to be paid. Given the complexity of the practical implementation of energy sharing, Flanders has chosen for a phased roll-out. Since 1 January 2022, collective self-consumption within one building is possible. Since 1 July 2022, peer-to-peer trading[32] is allowed. In a later phase (from 1 January 2023), it will become possible for energy communities to share energy among members of the community. Three pilot projects are expected to start in four of the five Flemish provinces: one in an apartment block with rooftop PV, one in a company with their employees

[31] See GoN (2022): Meld. St. 11 (2021-2022) Additional notification to Meld. St. 36(2020-2021) Energy for employment. Long-term value creation from Norwegian energy resources (in Norwegian); White paper from Norwegian Ministry of Petroleum and Energy and GoN (2021): Meld. St. 36. (2020- 2021) Energy for employment. Long-term value creation from Norwegian energy resources (in Norwegian). White paper from Norwegian Ministry of Petroleum and Energy.

[32] Article 2(18) RED II defines 'peer-to-peer trading' as the sale of renewable energy between market participants by means of a contract with pre-determined conditions governing the automated execution and settlement of the transaction, either directly between market participants or indirectly through a certified third-party market participant, such as an aggregator. The right to conduct peer-to-peer trading shall be without prejudice to the rights and obligations of the parties involved as final customers, producers, suppliers or aggregators.

and one with a local authority/social service with vulnerable households. The intention is to learn from obstacles and problems when they arise in practice, and to overcome them when implementing energy sharing at a larger scale.

In **Italy,** a regulatory framework for energy sharing is in place. In a REC or a group of jointly acting renewable self-consumers "shared energy" equals to the hourly minimum between the electricity produced and fed into the grid by renewable source plants and the electricity withdrawn from all associated final customers located under the same high/medium voltage substation ('transformation cabin'). There are targeted financial incentives encouraging energy sharing.

In **Latvia**, the recently adopted amendments on the Electricity Market Law specify the activities, rights and duties of energy communities in the electricity sector. Among others, new terms such as 'active customer', 'electricity sharing', 'flexibility services' have been introduced. By 28 February 2023, the government will issue regulations specifying the procedures for electricity sharing.

In the **Netherlands**, energy sharing is not possible yet, but legislation has been drafted under which sharing of the renewable energy produced by a REC will become possible. In the draft legislation, energy sharing is considered to be a form of energy supply, and as such any collective form of energy sharing is regulated by the same rules applying to energy supply to end users by other market parties, with one exception: a group of active end consumers (including energy communities) can supply energy to their members without the need for an official license as an energy supplier (getting such a license is a considerable administrative burden), as long as the amount of energy supplied to the group members does not exceed the amount of energy produced by the collective installation. Energy sharing is not specifically promoted through the exemption of fees or charges.

The **German** government plans to introduce energy sharing, probably only after a fundamental overhaul of the electricity market design and the complex system of surcharges, fees, taxes.

Energy cooperatives in **Poland** can only use the energy generated for community needs. Collective self-consumption schemes are possible, and the latest draft amendment to the RES Act provides for the possibility of peer-to-peer energy trading[33] for prosumers.

Also, **Portugal**, has established a regulatory framework for electricity sharing. RECs are entitled to pay the tariffs associated with the access to the grid, with some exemptions/reductions. So called 'CIEG charges' (i.e., charges included in the network charges, associated with the costs of energy policy, sustainability and general economic interest) corresponding to the self-consumption and electricity conveyed to the grid by RECs and prosumers, may be totally or partially deducted by means of an order of the Government, on an annual basis.

[33] Peer-to-peer trading of renewable energy has been defined in Article 2(18) RED II as *"the sale of renewable energy between market participants by means of a contract with pre-determined conditions governing the automated execution and settlement of the transaction, either directly between market participants or indirectly through a certified third-party market participant, such as an aggregator. The right to conduct peer-to-peer trading shall be without prejudice to the rights and obligations of the parties involved as final customers, producers, suppliers or aggregators*."

In **Spain**, energy sharing is possible, but only based on the concept of 'collective self-consumption' (see above). The current legal definition of CSC, however, implies several practical limitations (see above).

4.5. Assessment of barriers and potential of development of RECs by Member states (RED II, Art. 22(3))

Article 22(3) of RED II requires that Member States shall "*carry out an assessment of the existing barriers and potential of development of RECs*". In **Belgium (Flanders)**, an assessment of existing barriers for collective activities has been made by VITO on the request of the Flemish Energy and Climate Agency. A summary of this assessment has been made publicly available including an overview of key barriers for collective activities and key recommendations.[34] As the regulatory and enabling framework is still under development, no assessment can be made about the extent to which the abovementioned recommendations are considered. In **Germany**, **Latvia**, **Poland** no dedicated assessments by public authorities have been carried out. In **Latvia**, the **Riga Planning Region** has performed feasibility assessments; however, these assessments treat building-scale energy communities only. In the **Netherlands**, an official REC potential assessment has been commissioned by the Dutch Ministry of Economic Affairs and Climate Policy and carried out in 2019 by the consultancy ASI-Search. In **Portugal**, an assessment of the potential and barriers to the implementation of RECs is foreseen by the Decree Law No. 162/2019 but has not been carried out yet. In **Spain**, the Institute for the Diversification and Saving of Energy (IDAE), identified both barriers and recommendations through its Guide for the Development of Instruments for the Promotion of Energy Communities (*Guía para desarrollar instrumentos de fomento de comunidades energéticas*).[35] In this context, the authors would like to point out that in the frame of COME RES, rough assessments of the potentials for RECs in the COME RES target regions have been prepared. These assessments rely on a common methodology and take into consideration the specific climate, energy, technological and socio-economic conditions.[36]

4.6. Provisions for RECs in spatial planning and design of urban infrastructure, industrial or residential areas and energy infrastructure (RED II, Art.15(3))

Examples of spatial planning provisions are rather rare. In the **Netherlands**, the 'national spatial planning vision' (*Nationale Omgevingsvisie (NOVI)*), provides some choice principles for renewable energy projects, serving as a non-binding guidance for provincial and municipal authorities in their elaboration of legally binding spatial plans. These include a preference for large-scale clustering of the

[34] With net-metering, customers can offset their electricity consumption with small-scale RES over an entire billing period, using it at a time other than when it is produced. Hence, they effectively "store" their energy in the utility's grid and use it when convenient. Hall, S. et al. (2020): Business Models for Prosumers in Europe. PROSEU - Prosumers for the Energy Union: Mainstreaming active participation of citizens in the energy transition (Deliverable N°D4.1). Retrieved from https://proseu.eu/sites/default/files/Resources/PROSEU_D4.1_Business%20models%20for%20collective%20prosumers.pdf; accessed on 28 August 2022. https://www.energyville.be/sites/energyville/files/downloads/2020/infographic_energycommunities_engels.pdf

[35] See https://www.idae.es/sites/default/files/documentos/publicaciones_idae/guia_para-desarrollo-instrumentos-fomento_comunidades_energeticas_locales_20032019.pdf.

[36] Laes E. et al. (2021): Assessment report of potentials for RES community energy in the target regions. COME RES Deliverable 2.2. Retrieved from https://come-res.eu/fileadmin/user_upload/Resources/Deliverables/Del_2.2_Assessment_Report_of_Potential.pdf.

production of renewable energy because this reduces the spatial impact and contributes to cost reduction. The precondition is that residents are truly involved, have an influence on the use of the area and, where possible, share in the profits.

4.7. Key elements of an enabling framework to promote and facilitate the development of RECs (RED II, Art.22(4))

Removal of unjustified barriers

It turned out quite difficult to specify the meaning of an "unjustified" barrier. Project partners reported multiple barriers RECs are facing that need to be addressed. These barriers are at least partly being addressed by national and regional governments (for more detail see the individual country reports in the annex):

- Regulatory uncertainty due to the incomplete transposition of RED II (**Germany, Italy, Latvia**, **Poland**, **Portugal**, **Spain**)
- General technical barriers, e.g. technical state of the grid (**Poland**)
- Technical and geographical limitations for RECs (e.g., capacity limits for RES installations of RECs (**Italy, Poland, Spain**), limitations referring to the connection to certain grid segments (**Spain**), geographical limitations (e.g., **Poland)**
- Barriers for energy sharing (**Germany, Norway**)
- Complexity of technical and administrative procedures including burdensome and lengthy licensing processes (**Germany, Italy**, **Portugal**, **Spain**)
- Lack of knowledge and expertise among citizens and municipalities (partly **Germany**, **Italy, Latvia**, **Portugal, Spain**)
- Lack of human resources with the necessary training and technical skills to provide advice and support to RECs in small municipalities (**Portugal**, **Spain**)
- Lack of harmonised/unified procedures in different regions and municipalities (**Spain**),
- Access to funding including start-up and risk capital (**Germany**, **Latvia**, **Netherlands**, **Spain**)
- Insufficient consideration of RECs in RES support schemes or lack of dedicated support schemes for RECs (**Flanders, Latvia)**

A recently published COME RES report[37] provides more insights into the prevailing barriers in several of the COME RES target regions based on empirical research.

[37] Standal, K. et al. (2022): Synthesis report of case-studies on drivers and barriers in 5 selected target regions. COME RES Deliverable 3.4. Retrieved from https://come-res.eu/fileadmin/user_upload/Resources/Deliverables/COME_RES_D2_3_synthesis_case_studies_of_drivers_and_barriers.pdf; accessed on 14.08.2022.

Fair, proportionate and transparent procedures (including registration and licensing procedures)

In **Belgium (Flanders)**, energy communities must notify their existence to the regulator. Notification must indicate how the energy community meets the required criteria (voluntary entry, autonomy, control, ownership, objectives). One drawback is that there is no requirement to make this information transparent. A list of registered RECs and CECs is available on the regulator's website, but it is not clear how frequently this is updated. In **Italy**, statutes and/or acts concerning the establishment of a REC must take place prior to the application for access to incentives for community electricity. GSE, the company wholly owned by the Ministry of Economy and Finance in charge of granting incentives for renewables, provides the application form, the contract sample and the technical rules containing the precise calculation criteria that may be necessary to obtain the incentives. It also sets up a specific interoperable portal that manages the registry of all RES generating plants for the purpose of accessing incentive service of shared electricity as well as for the technical and economic management of the service. The documents to be submitted to the GSE include the declaration of compliance that all members of the community possess the characteristics to be members of a REC; declaration of plant conformity of production; declaration on the compatibility of the community to incentives for collective self-consumption. The REC members then need to elaborate a concrete and practical strategy on how to distribute the incentives. A barrier is that there are no fixed maximum days to receive the formal approval from the DSOs to sign the contract. In **Germany**, usually the same permitting procedures apply for all RES projects of a certain technology and size, independent of their ownership. Like in several other analysed countries, project permitting is generally a complex and lengthy process. The recent amendments to the Renewable Energy Sources Act of July 2022 exempt wind energy ≤18 MW and PV projects ≤6 MW developed by 'citizen energy companies' from the auction system, thus minimizing the risks and administrative efforts for those energy communities. In the **Netherlands**, RECs will be registered as a market party (similar to any other market party) by the competent authority for the energy market. There is a potential risk that there will not be sufficient control on the entities that label themselves as 'energy communities'. However, this is a general problem that all Member States face. In **Portugal,** registration and licensing procedures have been described by several stakeholders as one of the key barriers to the implementation of RECs, being a complex and lengthy process. However, there has been adopted legislation with the purpose to simplify the process. Overall, the procedures are considered to be too demanding for small collective energy initiatives (being self-consumption or RECs). The ambiguity of the criteria to be considered a REC may also hamper the transparency of the licensing procedures. This has been partially reduced by the concretisation of the concept of proximity in the recently published legislation. In **Spain**, REC developers often complain about the complexity of administrative procedures, especially when it comes to obtaining permission to use the grid, as the grids are mostly owned by large energy enterprises and incumbents.

Measures providing that the relevant DSOs cooperate with RECs to facilitate energy transfers within RECs

In many of the cases we did not find any specific measures/provisions that facilitate or require a distinctive DSO/REC cooperation. Exceptions are **Belgium (Flanders)**, **the Netherlands** and **Portugal**.

The Flemish DSO, Fluvius, and the Dutch DSOs (once the new Energy Law enters into force) are legally required to carry out the transactions required for energy sharing and selling. In both countries, the DSOs have to register the different forms of energy exchange, check certain participation conditions, e.g., whether a digital meter is available on a quarter-hourly basis and report the purchased, injected and shared energy volumes to energy suppliers. In **Portugal**, the DSO has to provide the information required for correct invoicing of the different participants in self-consumption, the information on the energy produced and not consumed in a given time period, indicating the surplus that is fed into the grid by each generation unit and the requirements and specifications necessary to ensure the interoperability with the system operator.

Preferential network charges or any other preferential treatment with regard to network charges/tariffs

In most countries analysed, we did not find any preferential network charges. One exception is **Portugal** where RECs and collective self-consumption schemes are exempted from the grid tariffs of the voltage levels upstream of the voltage level of the connection point, when there is feed-in of energy from the grid upstream of the generation unit connection point. Moreover, they do not have to pay part of the grid tariffs of the voltage levels upstream of the voltage level of the connection point, in an amount to be defined by the regulator when there is a reversal of the flow of energy on the grid upstream of the generation unit connection level. RECs may also be exempted at least partially from the 'CIEG charges' associated with the costs of energy policy, environmental or general economic interest associated with the production of electricity and the costs of sustainability of markets. The regulator decides about this exemption on a yearly basis.

In **Latvia**, the recent legal amendments stipulate that "*the power distribution system services' tariffs might be differentiated between the levels of voltage, power capacity, electricity consumption, electricity delivered to the distribution grid or the profiles of electricity customers*." This opens at least the way for the legislator to elaborate differentiated tariffs for electricity sharing, e.g., depending on used voltage and other parameters. In **Poland**, there is a 'net metering system'[38] for energy cooperatives, which however, has only a low incentive effect. The energy seller settles the amount of electricity fed into the electricity distribution network with the energy cooperative against the amount of electricity taken from the network for own consumption by the energy cooperative and its members at a ratio of 1 to 0.6. The energy cooperative is exempted from the payment of charges for its settlement and from charges for the distribution service, the amount of which depends on the amount of electricity taken by all generators and consumers of the energy cooperative. In **Italy,** depending on the configuration of the REC, there is an incentive for shared energy of 8€/MWh that sums up with the other incentives. The tariff of the extra energy produced and fed into the national grid depends on the situation on the electricity market and is calculated on a daily basis.

[38] For a definition of net metering see Hall, S. et al. (2020), p. 29; see footnote 34.

Transparent cost-benefit analysis of distributed energy sources by national competent authorities

In almost none of the nine countries examined, such a cost benefit analysis has been elaborated so far. At least to a certain extent, **Spain** can be regarded as an exception. There have been several studies commissioned by the national government that have led to a roadmap for the promotion of self-consumption[39] (not specifically RECs, although it includes a specific measure (#19) on the matter) and a plan for the promotion of self-consumption (not specifically RECs). These studies include rigorous analyses of the costs and benefits of self-consumption. There is apparently no discriminatory treatment in terms of the overall cost sharing of the system. Fees and other charges appear to be adequate even though they do not benefit RECs. In **Portugal**, such an analysis should have been completed by October 2021, but its elaboration is still pending. In **Latvia**, such an analysis might be performed in 2023, simultaneously with the revision of grid tariffs. Considering the lack of such analyses, for most partners it was difficult to profoundly assess if relevant existing fees, charges, levies and taxes ensure that RECs contribute in an adequate, fair and balanced way to the overall system cost sharing. The Horizon 2020 project PROSEU has carried out such an analysis for a number of Member States.[40]

Non-discriminatory treatment with regard to activities, rights and obligations of RECs

In some countries, partners emphasised that there is discrimination between individual prosumers and collective self-consumption schemes and RECs or between 'people and businesses with their own roof and people and businesses with a shared roof' (**Belgium (Flanders), Germany**). In **Poland**, partners pointed out that energy cooperatives are restricted to rural and rural-urban municipalities. In **Portugal**, it has been indicated that the scope of action of RECs is larger than the one of collective self-consumption schemes, as the latter should have their own supply as the main goal. Collective self-consumption initiatives are limited to production, consumption and storage of electricity, and to the transaction in the market of the excess energy. In **Spain**, no discriminatory practices have been identified, although some of the barriers described above could be understood as discriminatory (e.g., the limitation of RECs to the low voltage grid or the 500 metres limitation from the generation source). In **Latvia**, the recent amendments to the Energy Law and the Electricity Market Law explicitly emphasize that discriminatory treatment should be avoided. The Electricity Market Law stipulates that the state administration, when planning new policies and measures, provides for the equal right of electricity energy communities to apply for participation in state aid schemes along with other market participants. These amendments also state that electricity sharing does not affect the rights and obligations of the parties involved as final customers, producers, traders or aggregators.

Accessibility of RECs for all consumers, including low-income or vulnerable households

In most countries under scrutiny, participation is explicitly open for all consumers. Legislation in some countries like **Italy** and **Portugal** even explicitly mentions low-income and vulnerable households,

[39] See https://www.miteco.gob.es/es/ministerio/planes-estrategias/hoja-ruta-autoconsumo/hojaderutaautoconsumo_tcm30-534411.pdf.
[40] Hall, S. et al. (2020), p.29. See footnote 34.

although dedicated policy measures to encourage the engagement of such groups are scarce. In **Italy** Art 31,1 d) Legislative Decree states that participation in RECs is open to all consumers, including those belonging to families of low income or vulnerable households.

In **Spain**, examples exist in which vulnerable households are the main participants in a REC, for example the REC *La Energía del Cole in Arroyomolinos de León* (Huelva). Moreover, several policy strategies and measures may facilitate the participation of low-income and vulnerable groups in RECs. The National Strategy Against Energy Poverty 2019-2024 stipulates that among the measures to be considered in the medium/long term in the fight against energy poverty, the promotion of collective thermal and/or electrical self-consumption should be considered. The National Energy and Climate Plan 2030 includes a specific goal on reducing energy poverty, in particular by allocating a share in collective self-consumption schemes promoted by public administrations or social entities to vulnerable households, which would directly reduce the electricity bills of consumers at risk of energy poverty. Furthermore, one of the criteria considered for receiving financial assistance under the so called 'CE-Implementa' funding scheme (see below), is the 'abatement of energy poverty'.

RECs and particularly energy cooperatives often provide relatively low membership fees/entry costs. This has been reported for the cases of **Belgium (Flanders), Germany,** and **the Netherlands**. In **Belgium (Flanders)**, some of the existing renewable energy cooperatives have taken dedicated measures to facilitate the participation of low-income and vulnerable consumers. Examples comprise the collaboration with social welfare offices and social housing companies, the participation in projects which have a social aspect or focus, or the legal form some of these RECs have chosen, where the fact that they form a cooperative with a social purpose (*cvba-so,* limited liability cooperative with social purpose) implies that (at least 15% of) the profits will be used for a social purpose.[41]

Tools to facilitate access to finance

In most countries under scrutiny, special funding schemes for RECs are available or under development. In several cases (revolving funds in **Germany** and the **Netherlands**), financial support has to be paid back if the respective project is implemented, while in other cases repayment is not envisaged.

In **Germany**, there are low interest loans for energy communities provided by promotional banks such as KfW and other financing institutions. Risk capital and funding to finance upfront costs of energy communities is provided by several federal states through revolving citizen/community energy funds (e.g., Schleswig-Holstein, Thuringia). Inspired by these examples, the Federal government recently decided to set up a support programme for wind farms of citizen energy companies at the national level. Funding will be provided for the costs of the planning and approval phase. Eligible measures include all measures in the preliminary planning of a project, such as feasibility studies, site analyses, profitability calculations as well as other necessary expert opinions. Up to 70% of the costs for the planning and

[41] For more information, see also the good practice cases in Flanders described in the COME RES Good practice portfolio. See Maleki-Dizaji, P. et al. (2022): Good Practice Portfolio of Renewable Energy Communities. COME RES Deliverable 5.2. Retrieved from https://come-res.eu/fileadmin/user_upload/Resources/Deliverables/Del_5.2__Good_Practice_Portfolio.pdf; accessed on 14.08.2022.

approval of wind energy projects can be subsidised, up to a maximum of 200,000 EUR. Repayment is due when the overall project is financed. If the project does not materialise, repayment may be waived provided 'appropriate justification' is given.

In **Italy**, Article 14 of Legislative Decree 199 sets specific coordination criteria for the measures introduced by the National Recovery and Resilience Plan (PNRR) and the instruments for sectoral incentives. In particular, paragraph e) relates to the implementation of the measures concerning the promotion of renewables for energy communities and self-consumption. It specifies criteria and methods for granting interest-free financing up to 100% of the eligible costs in small municipalities for the development of energy communities (as defined in Art. 31) and for the construction of RES plants, also in combination with energy storage systems'. The PNRR is going to allocate more than 2 billion EUR to install 2,000 MW of new electricity generation capacity in distributed configurations by RECs targeting municipalities with fewer than 5,000 inhabitants, i.e. those most at risk of depopulation.

In **Latvia**, the Ministry of Economics currently elaborates financial support programmes for RECs. Through the Cohesion Policy Programme for 2021-2027, funding for PV systems including systems developed by cooperatives and energy communities (including in rural areas) has been made available. However, the funding criteria have not been elaborated yet.

In **the Netherlands**, a revolving Development Fund for energy cooperatives has been set up, from which renewable energy cooperatives and associations can borrow money to fund staff support from a member project office and 'out-of-pocket costs' for specialist research or other necessary steps to arrive at a fundable business case and a permit for the project. When financial closure for the project is achieved, the cooperative would pay back the money, with a premium. Currently, the provinces of South Holland, Utrecht, Limburg and Drenthe contribute to the fund and energy cooperatives from these provinces can apply for funding.

In **Norway**, funding is provided to housing companies and housing cooperatives to cover expenses associated with mapping and identifying appropriate energy related measures, including local energy production.

In **Poland**, it is planned to offer dedicated pre-investment and investment support for energy cooperatives, energy clusters and local governments that are planning to establish energy communities. Pre-investment support would include co-financing for the development of strategic and investment documents and organisational activities related to the creation of formalised structures of energy communities. Investment support will cover co-financing of biomass installations and biogas plants, the development or implementation of systems supporting the planning or management of community energy, the reconstruction of local distribution networks and activities related to communication, information and promotion of the project's' effects in the area of local generation.

In **Portugal**, initial investments are supported through the Recovery and Resilience Fund. The national government recently opened a call to support the implementation of RECs and Collective Self-Consumption schemes, which aims at promoting electricity generation from RES at the community level. The programme finances between 50% and 100% of the investment costs, associated with the

installation of RES-E generation systems, performance of studies and consulting services, acquisition of software and/or smart platforms (limited to 25% of the total eligible investment). Applications are assessed according to the following criteria:

- number of participants/members of the community initiative;
- ratio between investment and energy savings (€/toe), aiming for economic efficiency;
- share of the total electricity consumption ensured by self-generation;
- energy sharing index, in order to value projects leading to a greater distribution of the electricity generated by the members of the initiative.

In **Spain**, the national government has established a comprehensive REC financing support scheme, which is part of the Recovery, Transformation and Resilience Plan providing 100 million EUR along four lines of assistance. The funding line 'CE-Implementa' (40 million EUR) is currently the only line of funding in place. It provides funding of up to 60% of the cost of REC projects in the fields of renewable and thermal energy, energy efficiency and/or e-mobility. Project selection considers innovativeness, social participation, social benefits, abatement of energy poverty, employment generation, gender perspective, and combination of different technologies. Further funding lines that will be available in the future include:

- 'CE-Oficinas' (Community Transformation Offices): funding for organisations and initiatives that have the aim of publicising the concept of REC and its benefits and accompanying and advising incipient RECs.
- 'CE-Aprende': funding to initiatives related to the dynamisation, promotion and publicity of a specific incipient community with the aim of familiarising people and organisations interested with the concept and to identify and bring in possible partners and members.
- 'CE-Planifica': funding for planning and constitution of the REC (including feasibility studies, contract models, technical assistance, legal assistance, etc.).

Apart from the national government, several regions and provinces offer financial assistance for renewable energy self-consumption projects, which are also available for RECs. Many regions have launched their own action plans for promoting the development of RECs (e.g., Andalucía, Valencia, Navarra, Madrid). The same is true for many municipalities, especially with respect to administrative/legal support.

In **Belgium (Flanders)** and **Norway**, no dedicated measures/tools have been identified to facilitate access of RECs to finance.

Tools to facilitate access to information

In several countries, local, regional and/or national energy agencies or other public actors play a key role for the provision of information and capacity building for energy communities including RECs, in addition to energy communities and their associations themselves (e.g., **Germany**, **Italy**, **Latvia**, **Portugal** and **Spain**). In **Latvia**, the Ministry of Environmental Protection and Regional Development is

expected to prepare Guidelines for the Formation of Energy Communities by 30 June 2023, including recommendations for public authorities on the provision of support for energy communities and their participation in energy communities. In **Poland**, there are plans to provide "horizontal support" in addition to the (pre-)investment support (see above). Horizontal support will be provided for the organisation of study visits for representatives of energy clusters and energy cooperatives, the creation of information points for potential applicants and entities interested in the development of energy communities, informational events, information materials, e.g., good practice manuals. In **Portugal**, the national energy agency, ADENE, in cooperation with other energy agencies and local agents, has to ensure support for self-consumption as well as training, information and clarification to self-consumers and promoters of self-consumption. For these purposes, ADENE is expected to implement a kind of supporting office for self-consumption and RECs to provide information and guidance, to develop a simulation tool aimed at analysing the technical and economic feasibility for the implementation and development of self-consumption and establish a dedicated helpline for self-consumption stakeholders. Similarly, in **Spain** the Community Transformation Offices and the funding line 'CE-Aprende' (see previous sub-section) will facilitate access to information and promote the concept of RECs. In terms of legal/technical support, the above-mentioned funding line 'CE-Planifica' aims to provide funding for the planning of all technical, legal and administrative aspects. Moreover, many regions have their own action plans for promoting the development of RECs (e.g., Andalucía, Valencia, Navarra). The same is true for many local municipalities, especially with respect to administrative/legal support. In **Belgium (Flanders)** and the **Netherlands**, no specific measures are currently available/planned by public actors. Information and support are mainly provided by the respective federations for renewable energy cooperatives. In **Italy**, the Energy System Research Company (RSE S.p.A.) is in charge of the measurement campaigns and monitoring already activated in the implementation of article 42-bis of legislative Decree Nr. 162 of 30 December 2019. It verifies the technical and economic effects of technical plants configuration and also their prospective interactions with the electricity system, also identifying any effects on the costs of dispatching and allocation criteria for network services. The results of the monitoring activities are communicated and made available electronically on an annual basis to the Ministry of Ecological Transition and to the energy regulator, ARERA, as well as the region and the territorially competent municipalities to improve the level of knowledge of the state of implementation of the configurations made in implementation of the legal framework.

Provision of regulatory and capacity-building support to public authorities

In most of the analysed countries, specific regulatory and capacity-building support for public authorities is not available. In **Latvia**, guidance targeting public authorities shall be prepared by mid-2023, including recommendations on the provision of support for energy communities and their participation in such entities (see previous section). In **Portugal**, the tasks recently allocated to the national energy agency ADENE will encompass the provision of regulatory and capacity building support to all prosumers and promoters of self-consumption, including public authorities. The National Energy and Climate Plan (NECP) envisages the "*promotion of programmes to support the establishment of energy communities in partnership with municipalities*". This action is expected to be implemented by 2025. In **Spain**, guidance has been prepared for local authorities. Moreover, the planned funding lines 'CE-Aprende' and

'CE-Oficinas' (see above) aim to set up a network of support activities, from which public authorities may benefit, including the creation of dedicated offices across the Spanish territory.

4.8. Political objectives/targets for RECs

Article 20 of the Governance Regulation (EU) 2018/1999 encourages Member States to specify additional national trajectories and objectives for renewable energy produced by RECs in their National Energy and Climate Plans (NECPs). However, none of the NECPs of the EU Members States represented in the COME RES project includes respective trajectories/objectives.[42]

Only few of the nine countries under scrutiny have established explicit quantitative targets for the development of energy communities or related targets. The Local Energy and Climate Pact in **Flanders** envisages that by 2030 there should be one cooperative renewable energy project (e.g., energy communities) per 500 inhabitants and 50 collective housing renovations per 1,000 housing units. In the **Netherlands**, the Dutch Climate Agreement sets out the goal of 50% local ownership of renewable energy on land by 2030. The 50% local ownership objective represents a non-binding policy intention. However, the meaning of the concept 'local ownership' has not been further defined. In **Poland**, a target of 1 million renewable energy prosumers and 300 'sustainable energy areas' (energy cooperatives, energy clusters, other entities) to be established by 2030 has been enshrined in the National Renewable Energy Action Plan[43] and the "Energy Policy of Poland until 2040".[44]

4.9. Dedicated support schemes for RECs/community energy (operational support)

In the **Netherlands**, there is operational support in the form of a feed-in premium for RECs called the 'Cooperative Energy Generation' (SCE) subsidy. The subsidy is targeted specifically at energy cooperatives and associations of co-owners. Eligible technologies include wind turbines (15-1,000 kW), PV (15-500 kWp) and small hydro power schemes (15-150 kW). Several countries provide dedicated (pre-)investment support and other types of financial support for RECs (see above). In **Italy,** Article 14 of Legislative Decree 199 defines the specific coordination criteria amongst the measurements introduced by the National Recovery and Resilience Plan (PNRR) and the instruments for sectoral incentives. In particular, paragraph e) specifies that "in implementation of the measures Mission 2, Component 2, Investment 1.2 "Promotion of renewables for community's energy and self-consumption "are defined criteria and methods for granting financing interest-free up to 100% of eligible costs, for the development of the energy community, as well as defined in Article 31, in small municipalities through the construction of RES production plants, also combined with energy storage systems. The same decree defines the conditions for cumulation with the tariff incentives referred to in Article 8 of this legislative decree.

[42] Standal et al. 2020, page 35. See footnote 2.
[43] See https://energy.ec.europa.eu/system/files/2020-08/pl_final_necp_part_1_3_en_0.pdf.
[44] See https://www.gov.pl/web/climate/energy-policy-of-poland-until-2040-epp2040.

4.10. Consideration of the specificities of RECs in RES support scheme designs

In **Belgium (Flanders)**, the Green Certificate System is gradually being replaced by competitive bidding/auctions. Auctions do already apply for medium sized PV and small and medium scale onshore wind farms. The Flemish Council of Ministers decided to extend the scope for mid-size PV systems from 25 kW to 5 MW to include apartment buildings, CECs and RECs as a sub-category. In **Germany**, under the auction system, citizens' energy companies in the field of wind energy have benefitted from a preferential pricing rule (uniform pricing), which means that the market premium for citizens' energy companies that were successfully bidding equalled the highest successful bid of the same auction round. However, from 1 January 2023 onwards, projects of citizens' energy companies in the field of onshore wind energy (≤18 MW) and PV (≤6 MW) will be exempted from the obligation to participate in auctions. Remuneration will be based on a market premium that will be linked to the auction results of the previous year (for PV) or of the year before the last (for wind). The **Italian** National Recovery and Resilience Plan, has acknowledged the important role of RECs for the energy transition and is going to devolve 2,2 billion EUR for the installation of 2,000 MW new RES capacity to RECs in municipalities with less than 5,000 inhabitants. In **the Netherlands**, there is a special feed-in premium for RECs called the 'Cooperative Energy Generation' (SCE) subsidy (see above). **Spain** has also an auction scheme for RES based electricity. Generally, all participants in the auctions have to present a plan of impact indicating an estimation of direct and indirect employment, impact on local value chains, a circular economy strategy for the installation's components after their lifespan, analysis of the carbon footprint of the installation, social and environmental good practices that will be implemented during the construction and operation of the project, communication strategy to inform local citizens of the impacts and benefits of the installation and a plan for local citizen participation. In the recent auctions, special bidding windows have been created exclusively for 'citizens-led, distributed PV generation projects', which fulfil certain eligibility criteria.

Norway has had a green certificate/electricity certificates scheme in cooperation with Sweden since 2012, but the government decided to discontinue the scheme per 31.12.2021. Several support schemes are in place to support RES projects, but usually these have not been designed with RECs in mind. There is a support scheme for household prosumers, the 'plus customer scheme', which allows participants to use self-consumed electricity free of charge (exemptions from grid tariffs and taxes on the electricity produced), and to sell excess production to an electricity supplier. Revised regulations, designed to strengthen the rights of housing cooperatives and self-consumers, have been drafted (see above). Further support is available via funds distributed through various state-owned companies and administrative agencies such as Enova, Innovation Norway or the Research Council of Norway. The state-owned enterprise Enova SF provides economic support for innovation and technology development for households and businesses. Per February 2022, Enova also provides funding to housing companies and housing cooperatives to cover expenses associated with mapping and identifying appropriate energy related measures, including local energy production (up to 15,000-52,500, depending on the number of units and the mapping expenses). In **Poland,** where auctions are the main support scheme for RES based electricity, no special rules or preferential treatment for energy

communities or energy cooperatives could be identified. In **Latvia**, there is currently no operational support available for RES, e.g., via fixed feed-in tariffs/premiums or determined through auctions. There is a net metering scheme for individual prosumers. The amendments on the Law on Energy envisage that the Ministry of Economics elaborates financial support programmes for RECs.

4.11. Accompanying support measures specifically targeting RECs

In most countries, complementary support specifically targeting RECs is provided through national and international R&D programmes. Research and innovation projects can benefit from regulatory sandboxes, like for example in **Belgium (Flanders)**, **Germany**, **the Netherlands, Norway** or **Portugal**. Regulatory sandboxes enable experiments with new energy solutions that are not (yet) permitted in current law (e.g., peer-to-peer energy trading, energy sharing).

In some countries like **Germany**, **Italy, the Netherlands** and **Spain**, the regional level plays a key role in providing complementary support, e.g., through own support schemes, dedicated citizen/community energy funds, through information provision, advisory services, networking and other forms of capacity development.

5. Overall assessment of the transposition process and policy needs per country

In the following chapter we summarise key findings for each country including an overall assessment of the transposition process and policy needs. We also provide a quantitative assessment of the transposition performance prepared by the individual project partners. This covers three sections: (1) definitions, rights and market activities of RECs, (2) the key elements of enabling frameworks pursuant to RED II Art. 22(4), and (3) the consideration of RECs in support scheme designs. The quantitative assessment is based on a 0-5 rating system, which has been calibrated for each individual criterion. Rating scores positively correlate with transposition performance or overall performance: the higher the rating score, the more advanced the transposition or overall performance of the respective criterion that has been assessed. The quantitative assessment has been objectified by a standardised calibration table, nonetheless a certain degree of subjectivity is immanent.

5.1. Belgium (Flanders)

In **Belgium (Flanders)** transposition of REC definition, rights, obligations and activities is already quite advanced. Several principles like autonomy or proximity are not elaborated in detail and require further specifications. Compared to most other analysed 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, 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 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). By 17 August 2022, 31 organisations are registered as RECs, of which 19 are energy cooperatives, 2 BV (*beslooten vennootschap*), 8 NV (*naamlose vennootschap*), and one is an association of co-owners (apartment building).[45]

Figure 2. Definition of RECs (Flanders)

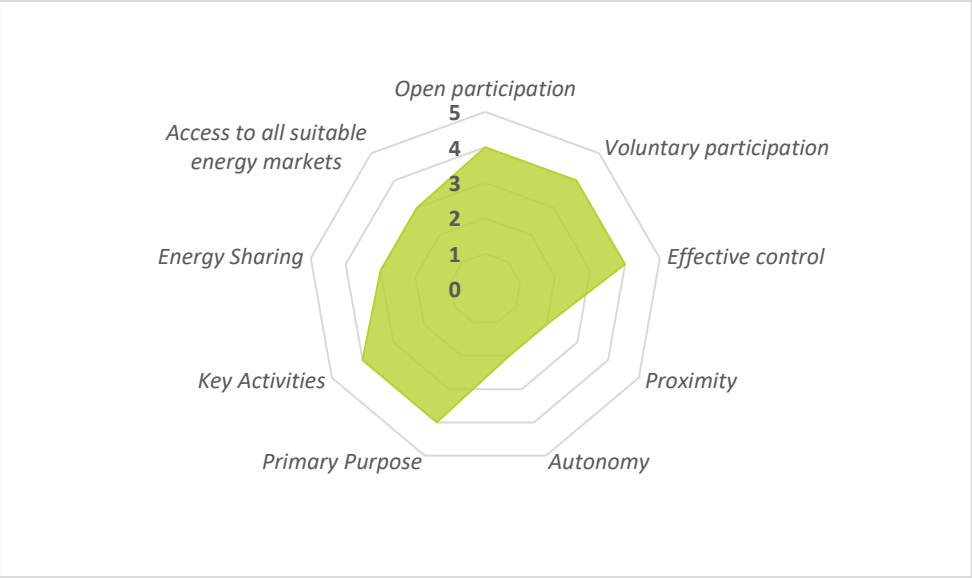
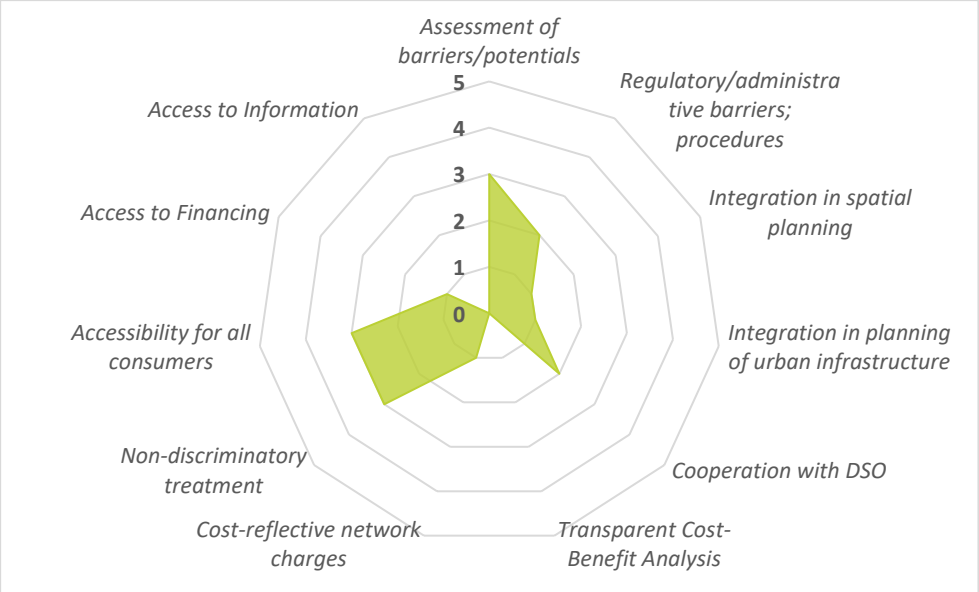
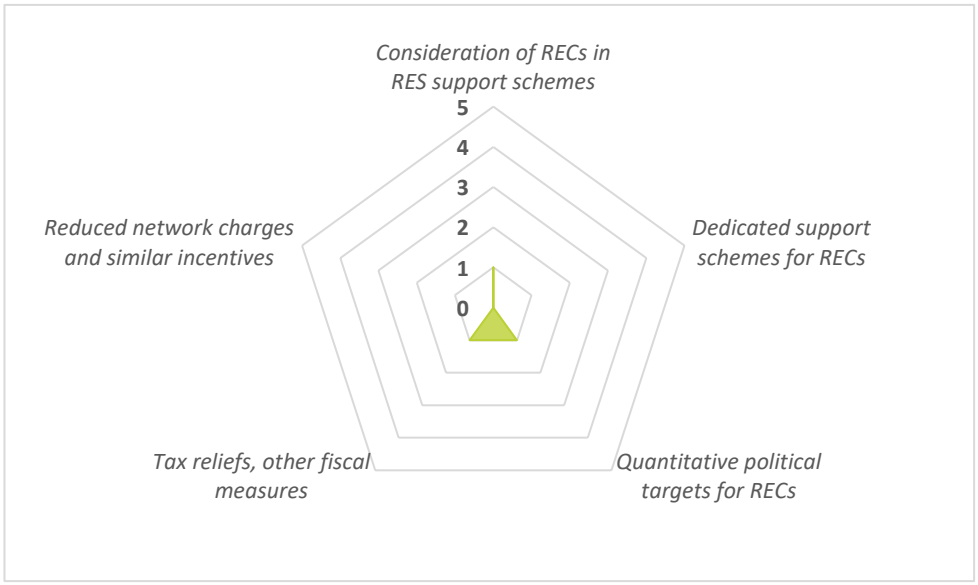


Figure 3. Enabling Framework (Flanders)



[45] See https://www.vreg.be/nl/energiegemeenschappen; accessed on 17 August 2022.

Figure 4. Support Schemes & Incentives (Flanders)



5.2. Germany

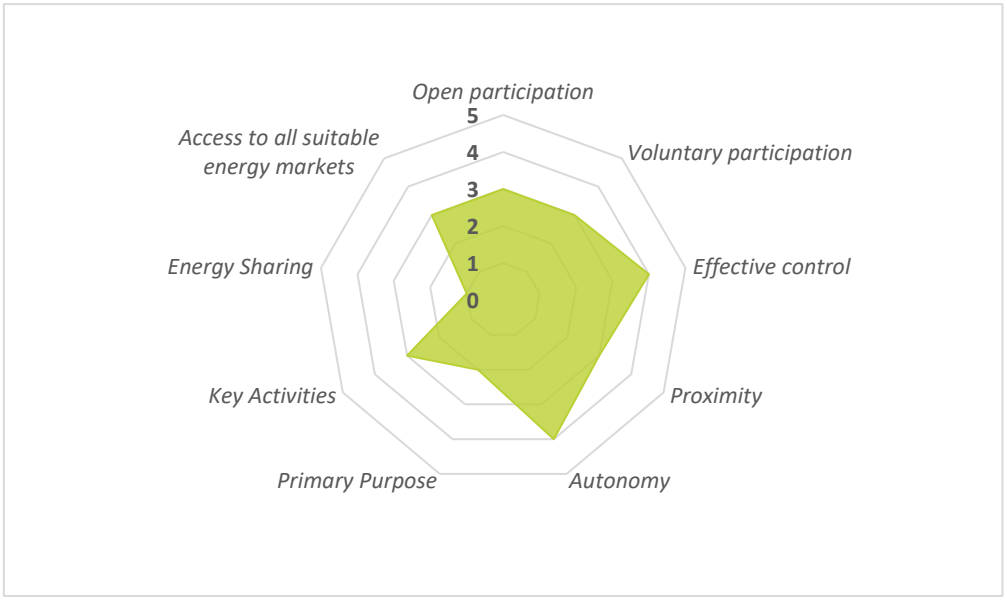
In **Germany**, the previous Federal government failed to fully and timely transpose the provisions for RECs. Full transposition of definition, rights, obligations and market activities is still needed, though some progress has been recently made by the new Federal government. The legal definition of 'citizens' energy company' which exists already since 2017 has been amended in July 2022 to comply with the provisions of RED II for RECs (although the wording 'citizens' energy company' resembles more that of the term 'citizen energy community' defined by IEMD). 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 wind energy and PV and electricity production. 'Open' and 'voluntary' participation have not been explicitly transposed into national legislation. In the annotations to the recently 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 nowhere been explicitly laid down, although in practice energy communities are engaged in various different activities including electricity storage, consumption, aggregation, sales or operation of distribution grids. Collective self-consumption and energy sharing represent particularly important transposition gaps. Here, a proper regulatory framework is still missing despite some recently achieved facilitations. Access to flexibility markets is difficult.

Regarding the establishment of an enabling framework, there are promising developments at the regional state level, which have inspired the Federal government to set up a dedicated funding programme for citizen energy (although limited to community wind power projects so far). Key barriers are the complex planning and authorisation procedures. This should be clearly addressed by the Federal government and the state governments, and we can observe first steps in this direction. The German partners see a need for information, advise and capacity building particularly for small municipalities. Generally, municipalities have a key role to play to initiate, facilitate and promote the development of energy communities. The creation of an enabling framework pursuant to the RED II needs to consider

and integrate the subnational levels of government including the federal level, the states, districts and municipalities. In recent years, we saw a rather piecemeal policy approach. There has been hardly any strategic and coherent planning towards RECs.

The supportive legal and regulatory framework played a fundamental role for the development of community energy in the past. A crucial factor facilitating the emergence of energy communities were attractive, long-term oriented feed-in tariffs/premiums, which helped create a low-risk investment environment. In 2017, however, price-based support was phased out and replaced by an auctioning system. Projects of community energy initiatives above a certain size also had to participate in auctions. Germany was one of the first EU Member States to consider the specificities of energy communities (namely) under the auctions in its Renewable Energy Sources Act. Wind energy projects of 'citizens' energy companies enjoyed certain privileges under the auction scheme. But these turned out ineffective and had partly detrimental effects due to misuse by conventional market players. In 2022, the new Federal government decided to make use of the revised European 'de minimis' rules'[46] and to exempt citizens' energy companies from the obligation to take part in auctions in the future. The definition of 'citizens' energy companies' has been amended to bring it in line with the RED II provisions for RECs and re-sharpened to avoid misuse in the future.

Figure 5. Definition of RECs (Germany)



[46] The new Climate, Energy and Environmental State Aid Guidelines (CEEAG) (https://ec.europa.eu/competition-policy/sectors/energy-and-environment/legislation_en) provide additional flexibility for RECs, allowing Member States to exempt REC projects and SME-owned projects up to 6 Megawatts (MW) of installed capacity from the competitive bidding requirement. RECs and small and micro enterprises may also develop wind projects up to 18 MW without competitive bidding. More generally, where competitive bidding does apply, the CEEAG enable Member States to design tenders in a way which enhances the participation of energy communities, for example by lowering pre-qualification requirements.

Figure 6. Enabling Framework (Germany)

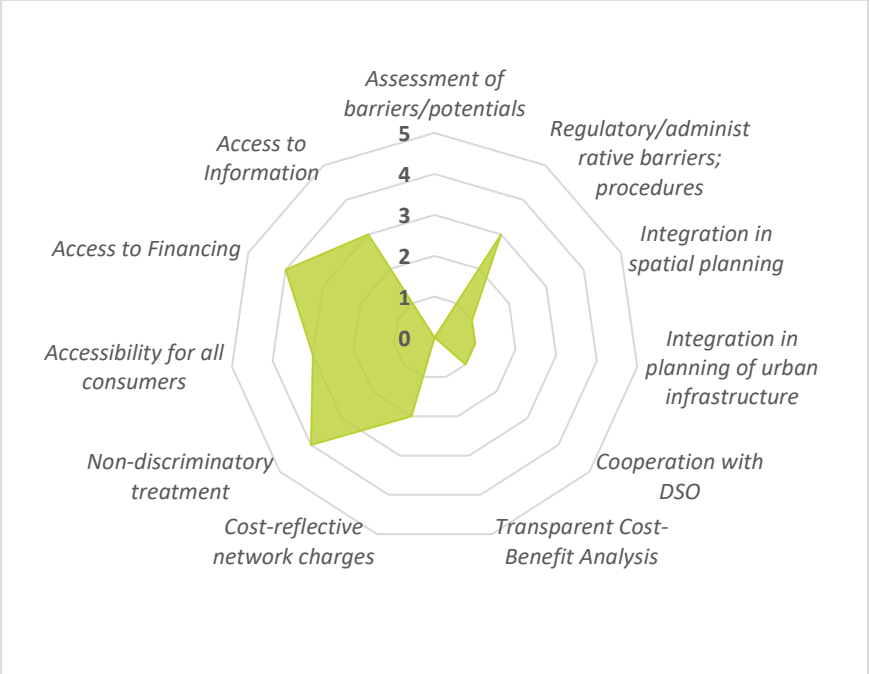
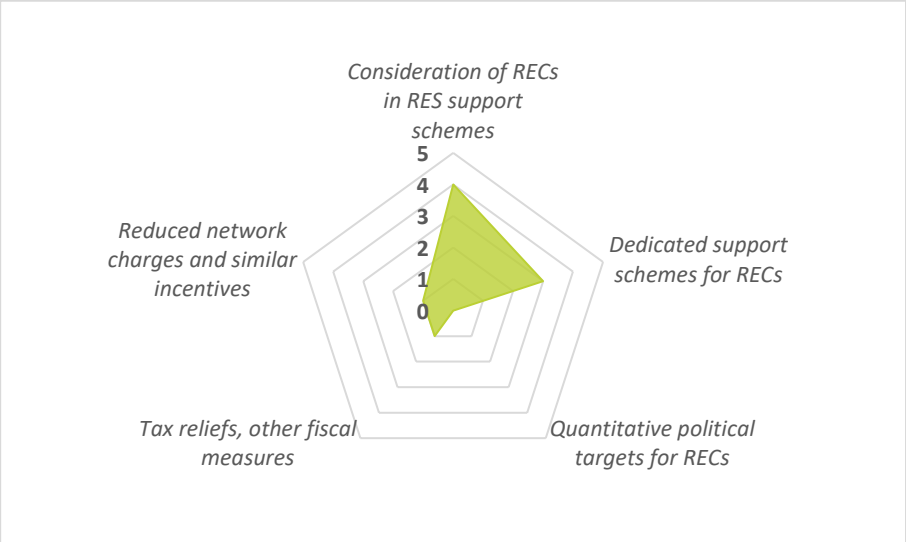


Figure 7. Support Schemes & Incentives (Germany)



5.3. Italy

In **Italy**, transposition of REC definition, rights, obligations and activities can be regarded as quite advanced. Actually, the transposition of the RED-II was anticipated well in advance in 2019 with the legislative decree n.162/2019 (*Milleproroghe)*. In 2020, law Nr.8/2020I provided already a general regulatory framework for self-consumption and renewable energy communities. In the same year, Italy set up an incentive scheme for RES-E self-consumption geographically limited to the same MV/LV substation or at condominium level. Nonetheless, there are still certain shortcomings and transposition gaps. Although the capacity limit for RES plants owned by a REC has been increased from 200 kW to 1MW, this threshold prevents the engagement of a larger number of citizens and small and medium

enterprises. Furthermore, technological diversification and innovations that might contribute to the development of other RES including biogas or biomass by RECs are needed.

The enabling framework is relatively advanced and the support schemes and economic incentives, which in many cases can also be cumulated, provide favourable conditions for RECs. Italy has a set of promising and mutually reinforcing policy measures and generous incentives. The recent Legislative Decree nr. 199/2021 provides a direct incentive for newly installed RES plants up to 1 MWp owned by RECs and collective self-consumers, who are exempted from auctions. However, the system of economic incentives is quite complex and depends on the individual REC configuration. The incentives landscape is going to be modified as the implementation of the legal framework advances. These incentives sum up with the cost of the energy and, in the most favourable case, is about 110 €/MWh for 20 years. Under the Recovery and Resilience Plan (PNRR), 2.2 billion EUR will be allocated in the coming years for the establishment of RECs in small towns with less than 5,000 inhabitants. The extension of the capacity limit for a RES plant owned by a REC from 200 kWp to 1 MWp, the incentive for shared energy in RECs, and the possibility of consumers and prosumers to get connected to the low and medium voltage grid and to the same HV/MV primary substation has considerably increased the potential participation perimeter of RECs and the number and type of customers that can join energy communities. Moreover, authorisation procedures for the installation of PV plants up to 50 kWp and also for larger plants have been simplified. Hence, in Italy, RED II has played a catalyst role to the planning and implementation of CE initiatives.[47]

In May 2022, there were 26 active communities in Italy, all based on photovoltaic plants with an average power of 15-20 kW. At the same time, the GSE, the state company in charge with incentives for renewables, had received 37 applications for incentives from 23 groups of self-consumers and 14 renewable communities located mainly in the North: 8 from Veneto, 7 from Piedmont, 6 from Lombardy, 5 from Trentino-Alto Adige, 2 from Friuli-Venezia Giulia and 2 from Emilia-Romagna, In the Centre and South of Italy there were two realisations in Abruzzo and one each in Campania, Lazio, Sicily, Marche and Tuscany[48]. Nonetheless, there is a standstill, despite the fact that the official timetable envisages an expenditure of 100 million by 2023. Regions are going to play a key role and have also set own targets for the establishment of RECs. For example, Lombardy announced in February 2022 its plans to establish 6,000 new RECs within five years generating 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.

[47] Krug et al. 2022, page 19 (see footnote 23).
[48] See https://www.firstonline.info/comunita-energetiche-rinnovabili-cosa-sono-come-nascono-e-perche-sono-un-affare-per-tutti/. Accessed 30.08.2022.

Figure 8. Definition of RECs (Italy)

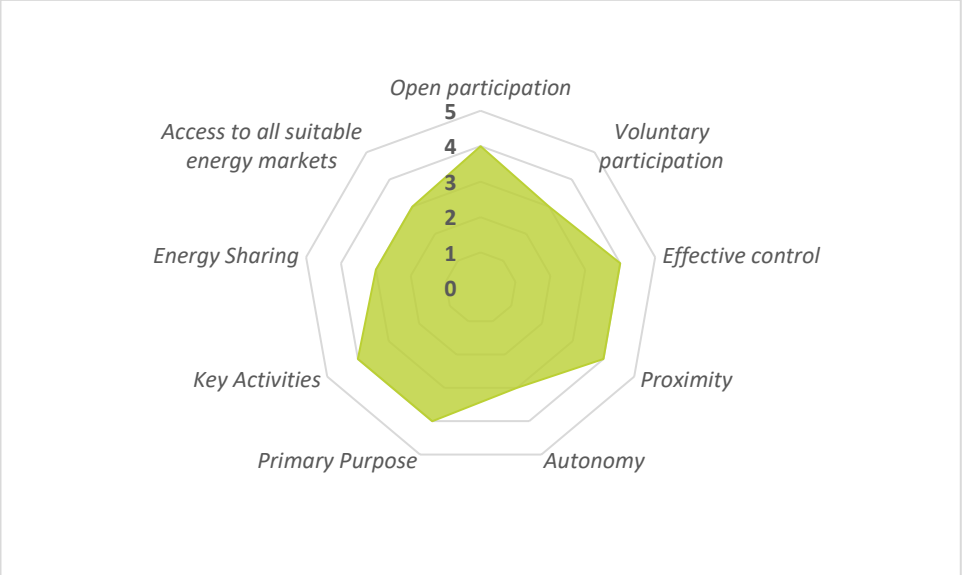


Figure 9. Enabling Framework (Italy)

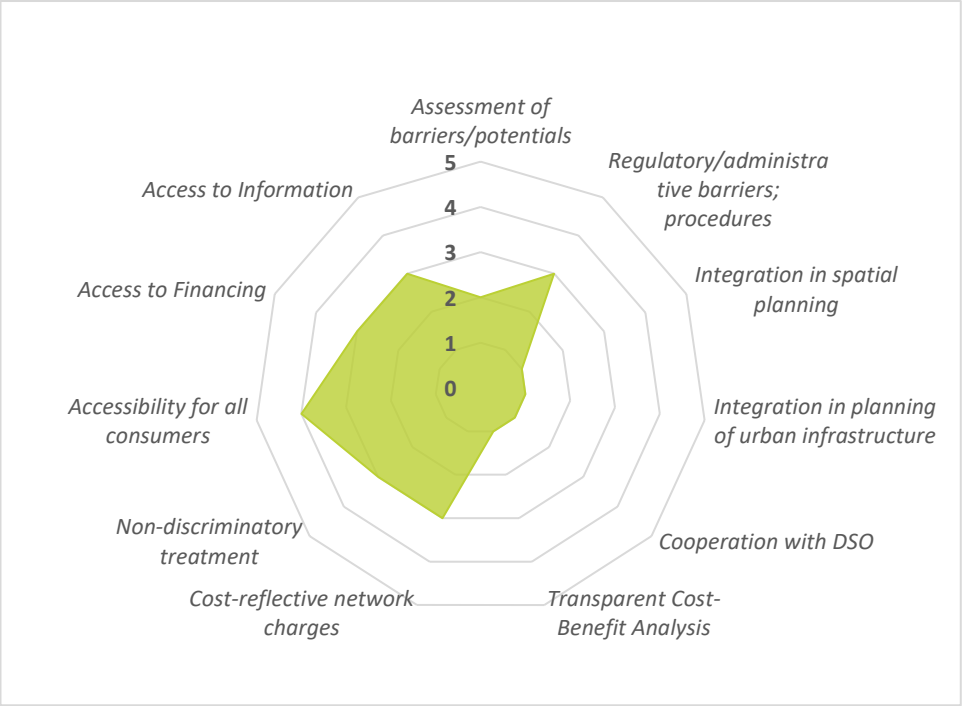
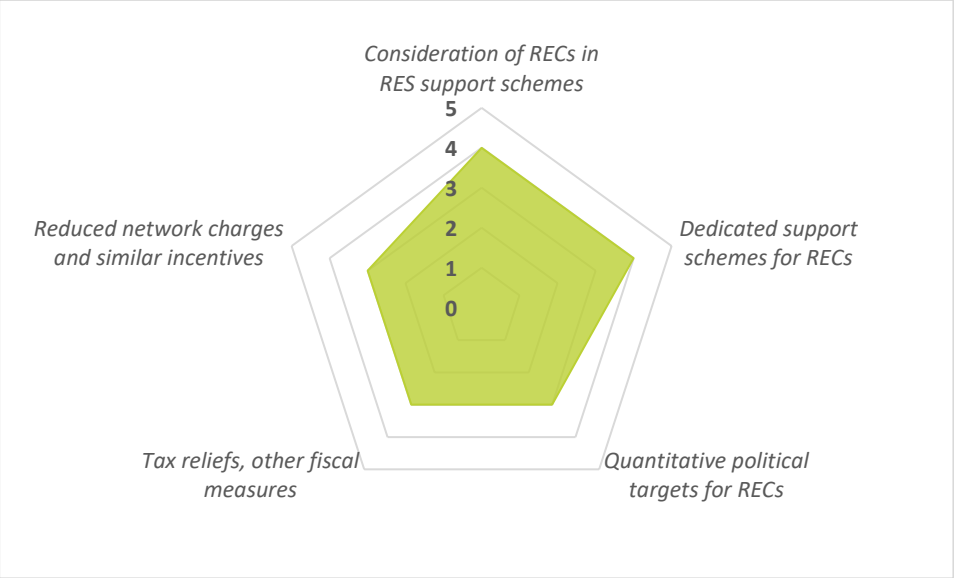


Figure 10. Support Schemes & Incentives (Italy)



5.4. Latvia

The legal definition of RECs has been included in the recently adopted amendments to the Law on Energy. The Government is planning to issue complementary regulations by 28 February 2023 further specifying items like 'proximity' and matters to be dealt with by statute, particularly use of profits, internal rules that determine relations among the members/shareholders of a REC, between RECs and other energy users and market actors as well as registration requirements for RECs. The amended Electricity Market Law contains definitions such as '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. Despite recent advancements in the legal transposition process, there are still several key elements missing in the legal and regulatory framework to ensure proper operation of RECs. Therefore, the adoption of complementary governmental regulations is essential to materialise the general framework. This will also provide the possibility to initiate pilot projects. The removal of prevailing barriers and the development of an effective enabling framework is particularly important. In Latvia, where energy communities are in an embryonic stage of development, access to information and financing are particularly critical success factors. A recent online survey among Latvian stakeholders performed in the COME RES project[49] illustrated the need to overcome the following barriers:

- 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,

[49] The online survey covered all COME RES partner countries and target regions. The results of the survey will be published in autumn 2022 on the website of the COME RES project https://come-res.eu/.

The enabling framework includes also some promising elements: the Ministry of Economics, in co-operation with the Ministry of Environmental Protection and Regional Development, is expected to elaborate and publish guidance for the formation of energy communities, including recommendations for public entities/authorities regarding the provision of support for energy communities and their participation in such entities.

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

Figure 11. Definition of RECs (Latvia)

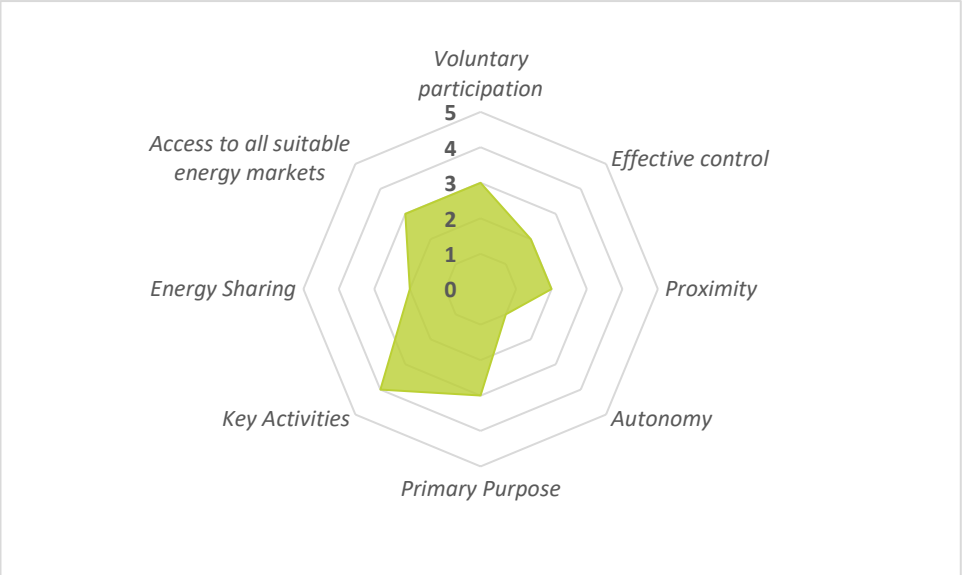


Figure 12. Enabling Framework (Latvia)

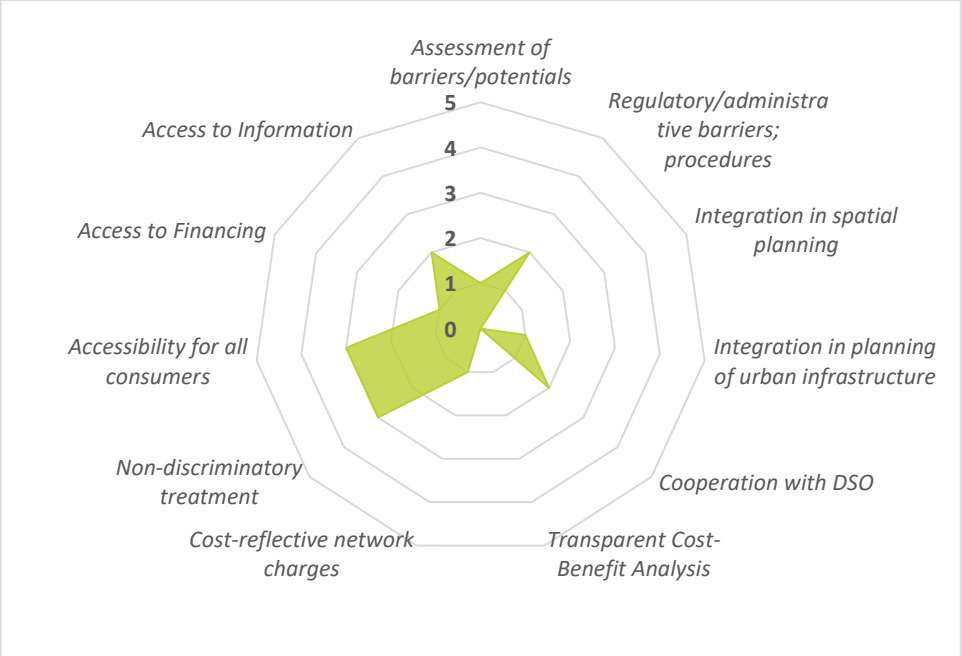
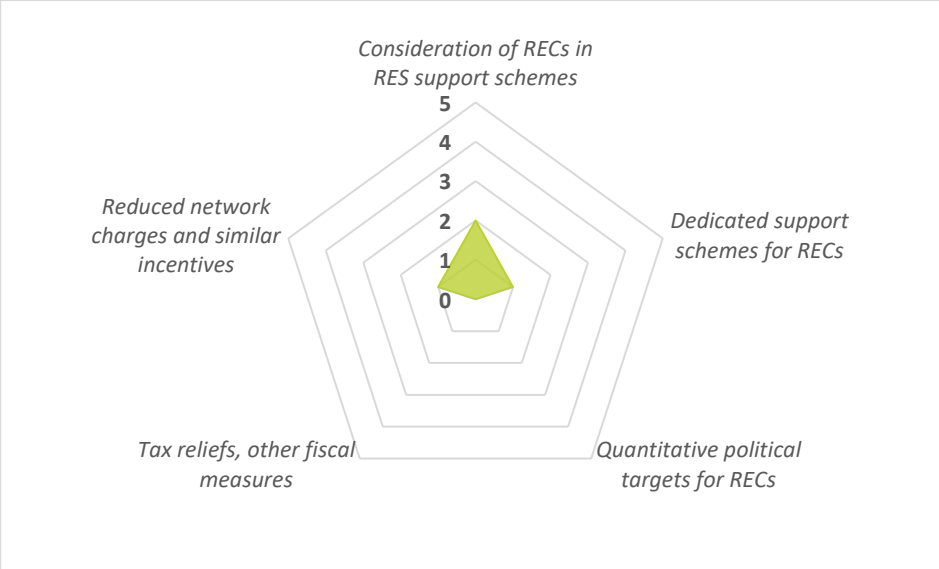


Figure 13. Support Schemes & Incentives (Latvia)



5.5. The Netherlands

Legislation transposing the RED II has been drafted, however full transposition is still pending. The draft 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. Several principles and indeterminate legal concepts referring to RECs will be specified in implementing legislation. 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 draft legislation, RECs are introduced as a new market actor, with the same rights and obligations as other market parties. They are treated on equal footing. A regulatory framework for energy sharing is under development. Energy sharing bears the potential to alleviate grid capacity problems, for example in the COME RES target region North Brabant. 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. According to the association of energy cooperatives *Energie Samen*, RECs that help with congestion management should be offered priority access to the grid. The association also advocate in favour of making such smart energy sharing projects eligible under the SDE++ subsidy, and offering incentives for participating in such projects through a reduction of the VAT.

Although full transposition of the REC definition is pending, the country has already a comparatively advanced enabling framework for RECs. This enabling framework is mainly developed at the level of the recently established ‘RES regions’, however, with only poor coordination between the regions. The national level does not consider itself to be responsible for elaborating an enabling framework for RECs/energy communities beyond setting the general framework conditions.[50] There is specific operational support (feed-in premiums) targeting energy cooperatives and associations of homeowners. Furthermore, 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. Among the countries analysed, the Netherlands is the only country that integrated 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.

Although 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) do not see the added value of cooperating with energy communities. The municipalities in the region of Hart van Brabant, for example, are mainly interested in achieving the goal of ‘50% ownership of the local environment' by investing in energy projects themselves (without the help of energy communities).

[50] This is in line with the polycentric governance system in the Netherlands which has been set up to implement the 2019 Climate Agreement, whereby the Netherlands was subdivided in 30 energy regions which each being responsible for developing a regional energy transition approach.

Figure 14. Definition of RECs (the Netherlands)

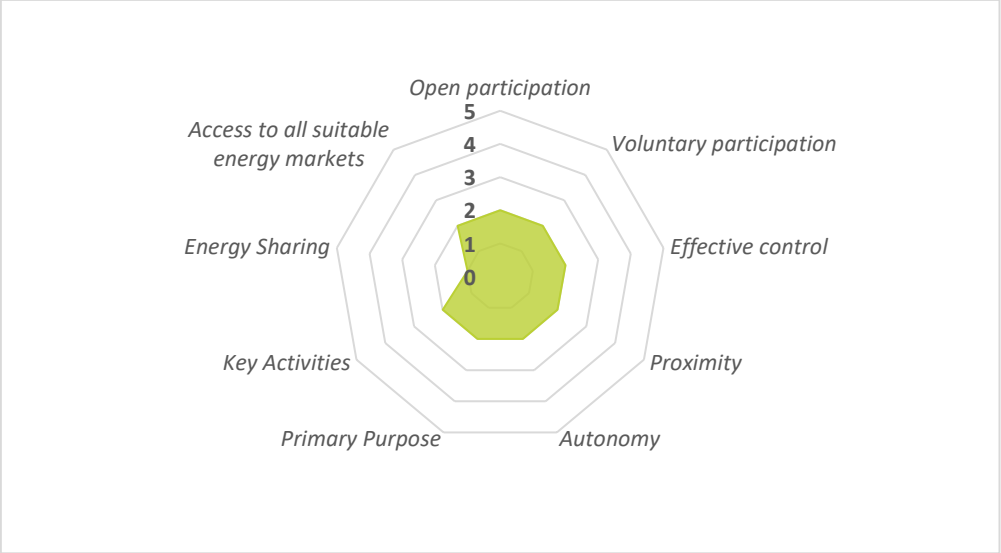


Figure 15. Enabling Framework (the Netherlands)

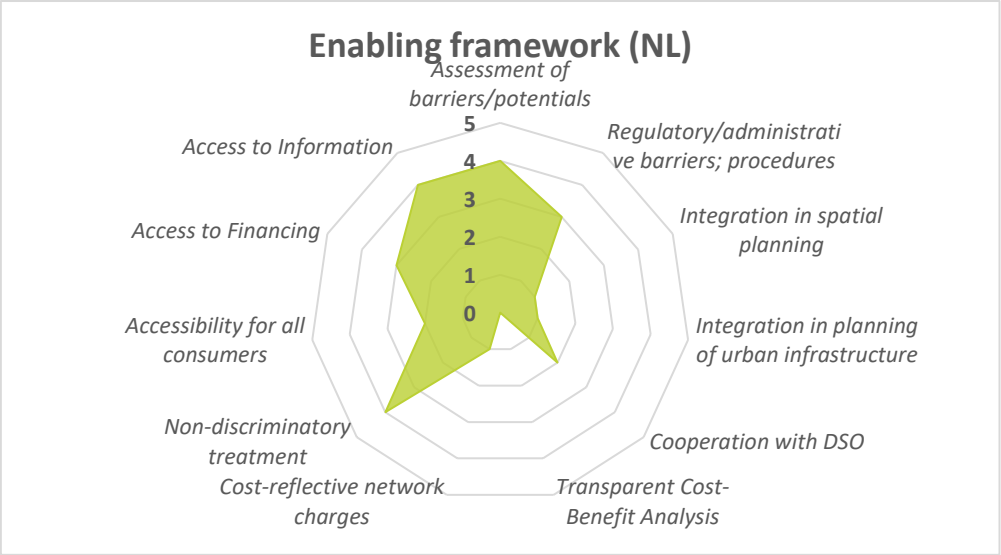
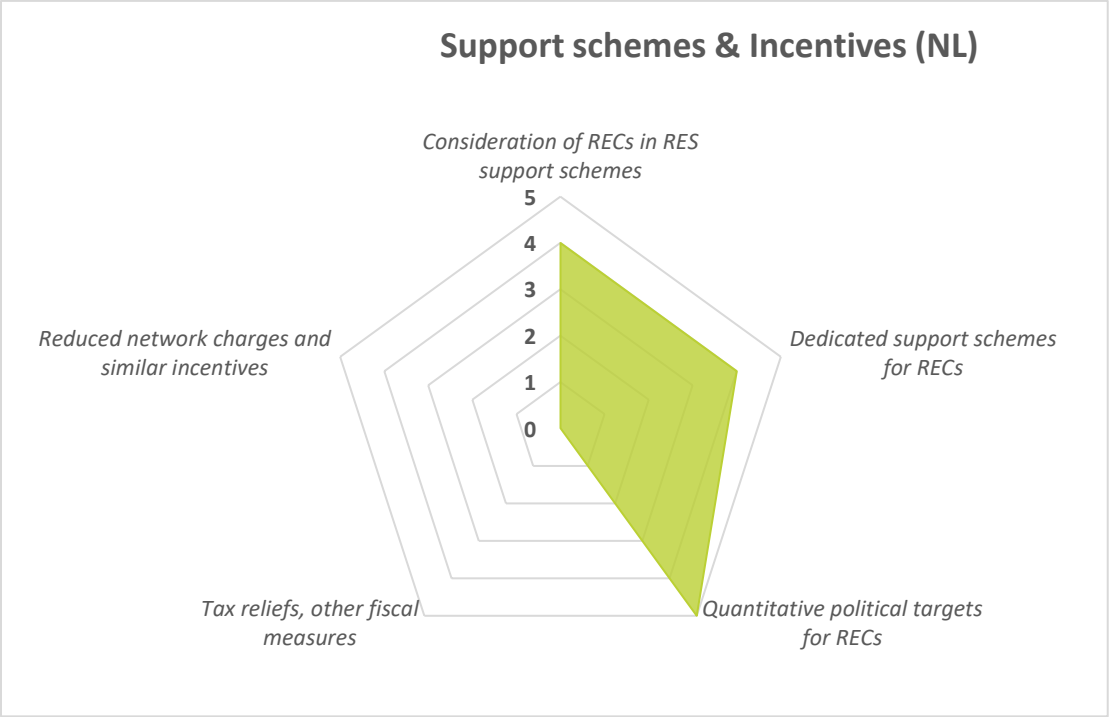


Figure 16. Support Schemes & Incentives (the Netherlands)



5.6. Norway

Norway is part of the European Economic Area (EEA) and 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. Transposition and implementation of RED II provisions for RECs and enabling frameworks are generally considered necessary. RECs have not been legally defined, thus an enabling framework for RECs or energy communities is underdeveloped. There are positive developments in so far as regulations have been proposed to extend the 'plus-customer scheme' that grants households rights as prosumers. The new regulations will facilitate joint electricity production and consumption within the same property and thus open up for condominiums to become energy communities. The new regulations are now in consultation and are signalled to be in place by the end of 2022. Existing 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. Due to the lacking transposition the authors decided to refrain from a quantitative assessment for the definition of RECs.

Figure 17. Enabling Framework (Norway)

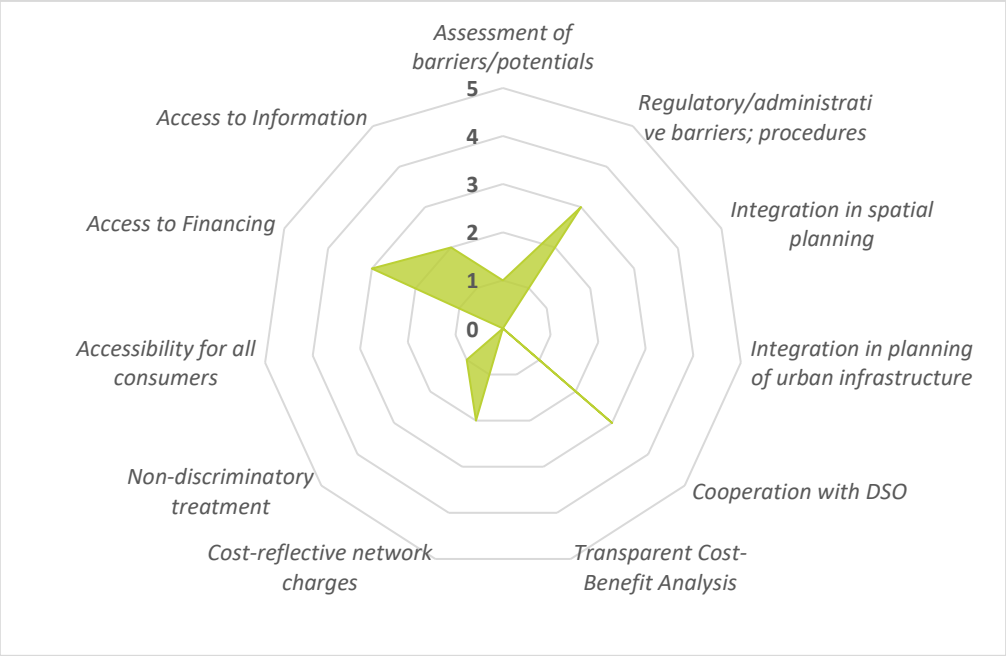
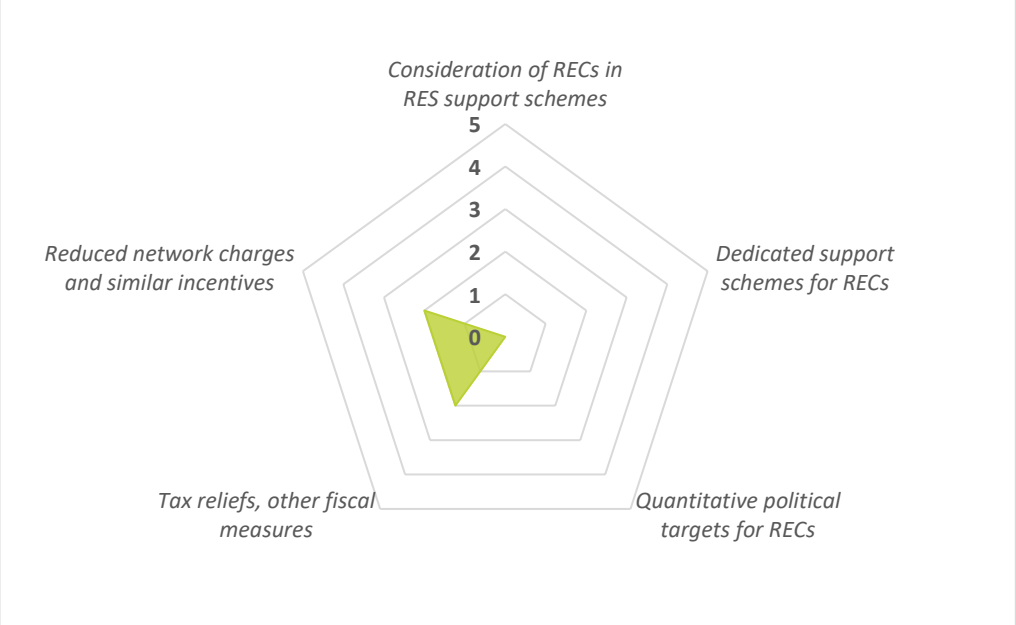


Figure 18. Support Schemes & Incentives (Norway)



5.7. Poland

With regards to the transposition of the European legal framework for RECs (definitions, rights, market activities), legislation in **Poland** is lagging behind the other analysed countries. The same applies for the creation of an enabling framework, economic incentives and the consideration of RECs in support schemes. Legislation transposing the provisions for CECs enshrined in IEMD have only been drafted. Draft legislation transposing provisions of RED II includes only few amendments on 'energy clusters'

but does not transpose the provisions for RECs. It is true, that there is a legal framework for 'energy cooperatives' in place. But existing regulations for energy cooperatives are not in compliance with the RED II and the Polish RES Act imposes considerable restrictions on energy cooperatives. The maximum number of a cooperative's members is 1,000. These can be established only in the area of rural or rural-urban municipalities. Further, there is a limitation regarding the installed capacity (10 MW) and there is a requirement that 70% of the cooperative's and its members' demand must be covered by the respective RES installation(s). The Senate of the Republic of Poland took legislative initiatives to abolish some of those restrictions, but the proposed amendments were rejected by the Government.

Energy communities in the sense of the two relevant European directives hardly exist to date. Therefore, it is of utmost importance to create an enabling environment and effective support schemes, and above all, profitable business models. Regulations for collective self-consumption have been recently established. Further promising elements include a quantitative target for the development of energy communities by 2030 enshrined in the 'Energy Policy 2040' and the planned pre-investment, horizontal and investment support for energy cooperatives, energy clusters and local governments that plan to create energy communities under the Polish Recovery and Resilience Fund. But urgent investments are also needed for the modernisation and further development of the transmission and distribution grids in order to not jeopardize the connection of new generation sources. There are certain provisions in place to remove administrative barriers and facilitate cooperation between energy cooperatives and DSOs, but the activities of DSOs should be more transparent (e.g., with regards to the technical conditions of distribution grids). Energy communities and collective self-consumption are an option to increase energy security and as a way to reduce electricity bills. They also offer opportunities to support low-income and vulnerable households and to mitigate energy poverty. However, no specific measures promoting the participation of low-income and vulnerable households in RECs have been taken so far.

Due to the lacking transposition and the unclear legal situation the authors decided to refrain from a quantitative assessment for the definition of RECs.

Figure 19. Enabling Framework (Poland)

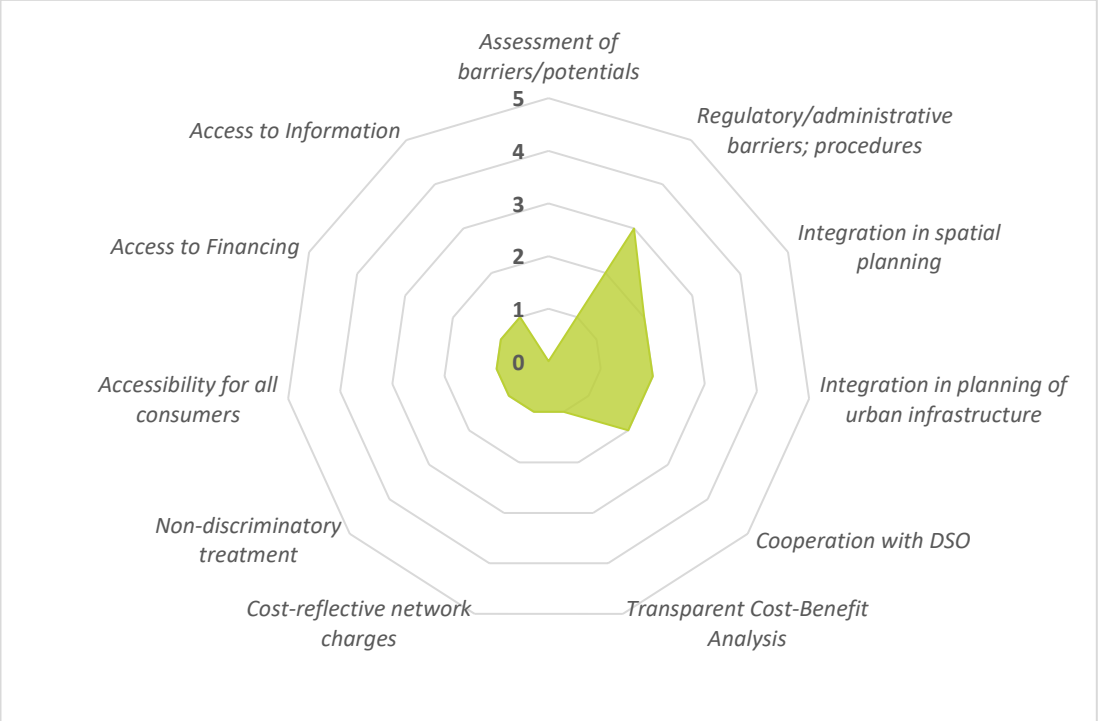
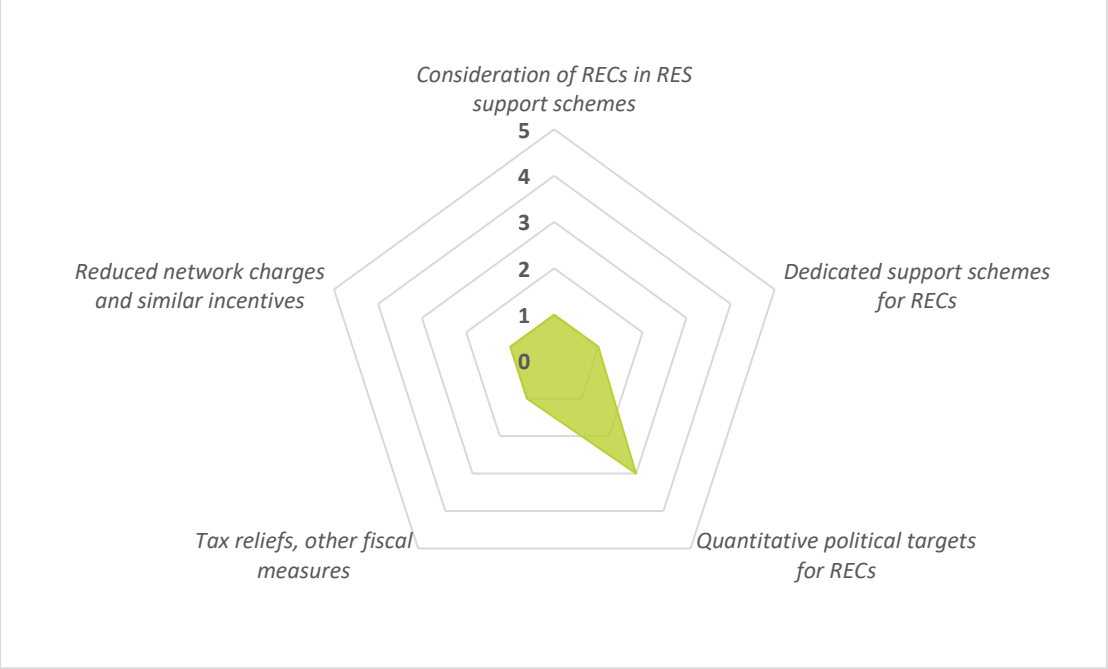


Figure 19. Support Schemes & Incentives (Poland)



5.8. Portugal

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 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 and proximity have not been properly transposed yet. Proximity rules are not directly related to effective control as envisaged by RED II, but to membership in a REC. 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 new 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 and partly underdeveloped. 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. 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).

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.

Portugal’s final National Energy and Climate Plan (NECP) provided a comparatively detailed description of how the government intends to promote energy communities, including reinforcing the Electronic Production Units Registration System and implementing an electronic information portal on distributed production, self-generation and energy communities. The plan further states that Portugal intends to promote programmes to support the establishment of RES community energy in partnership with municipalities. The measure aims to provide technical support and support with regard to obtaining funding. Support will be provided through public entities, in partnership with local partners.

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 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.

Figure 20. Definition of RECs (Portugal)

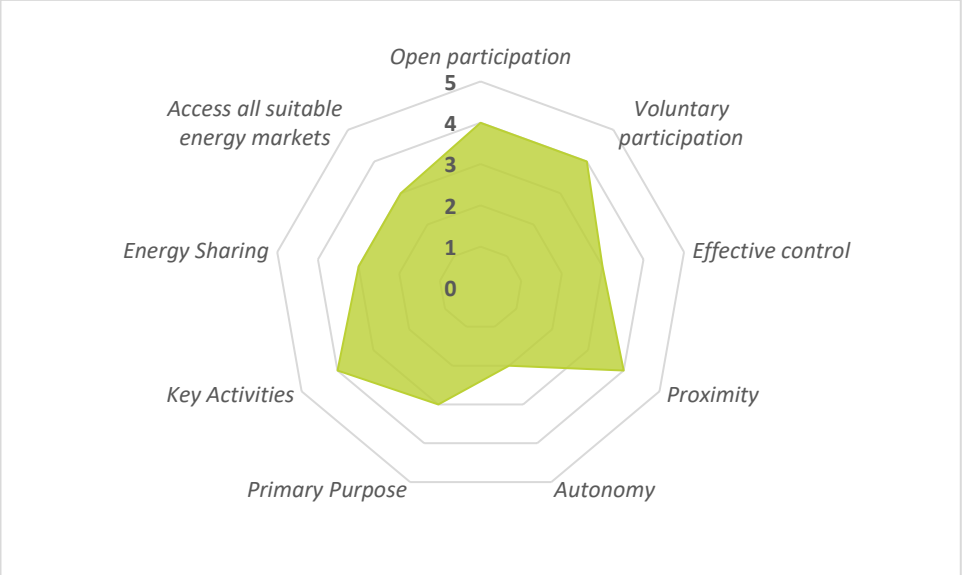


Figure 21. Enabling Framework (Portugal)

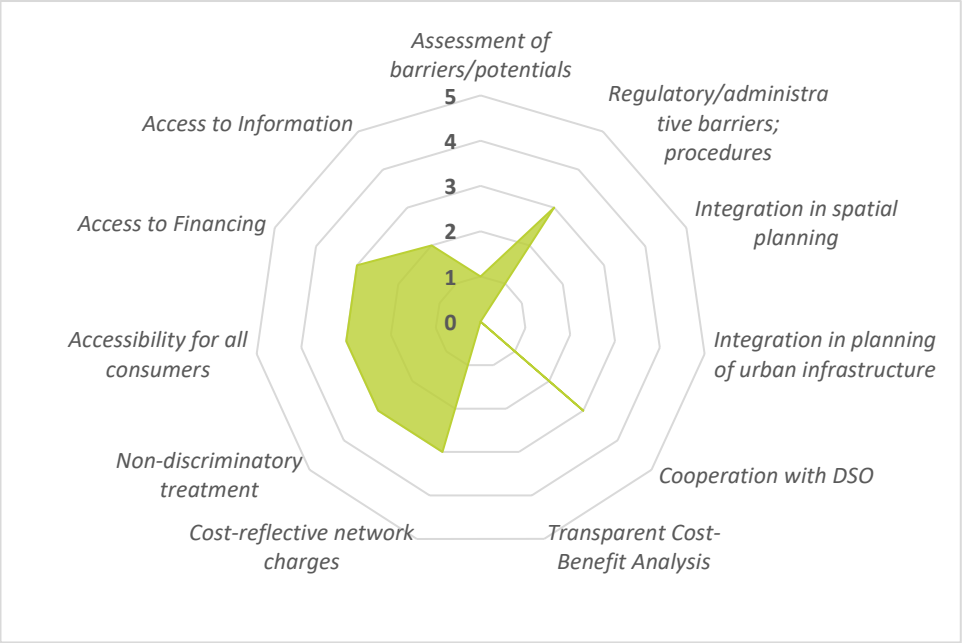
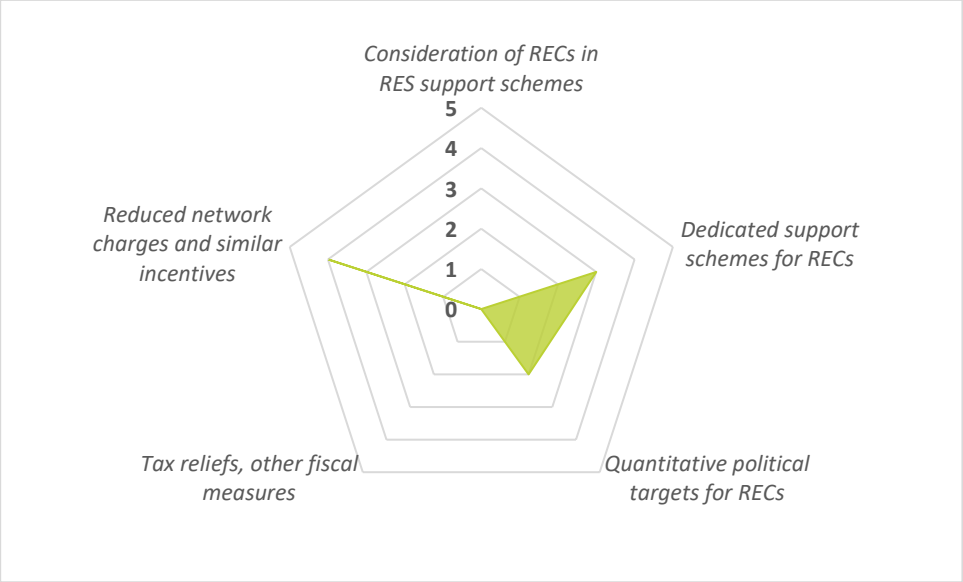


Figure 22. Support Schemes & Incentives (Portugal)



5.9. Spain

Since 2015, **Spain** has an advanced regulatory framework for collective self-consumption (CSC). The country is one of the few Member States that allow CSC schemes using the public grid. In 2020, the government introduced the definition of RECs which is mostly a literal transposition of the EU definition contained in RED II, without any further specifications of the many indefinite legal terms, rights, duties and possible market activities. Therefore, RECs are confronted with regulatory uncertainty and often use the legal framework for collective self-consumption (CSC). The current regulatory framework can be interpreted as a hybrid model between collective self-consumption and renewable energy communities. [51]Hence, there is an urgent need to complete the legal and regulatory framework for RECs and to fully transpose the relevant provisions of RED II, including for energy sharing. Existing technical restrictions for collective self-consumption in terms of capacity caps, grid connection limitations, or geographical boundaries prevent many buildings used by businesses, industry or public authorities to utilize self-consumption and should be removed for RECs.

In its National Energy and Climate Plan (NECP) from 2020 the Government already provided a comparatively comprehensive summary of the policies and measures it intends to adopt to promote RECs. The NECP proposed to facilitate the participation of citizens, SMEs and local authorities in the energy transition by: i) developing a legislative framework in compliance with RED II and IEMD, taking into account existing actors that could set themselves up as local energy communities (e.g. cooperatives);ii) simplifying administrative procedures by establishing a one-stop shop; iii) promoting demonstration projects, identifying viable business models and enabling them to be developed on a large scale; iv) establishing training and capacity-building programmes; and v) analysis of the creation

[51] Deutsche Energie-Agentur (dena) (2022): Energy communities: Accelerators of the decentralised energy transition ” Retrieved from https://www.dena.de/fileadmin/dena/Publikationen/PDFs/2022/dena_ANALYSIS_Energy_communities_Accelerators_of_the_decentralised_energy_transition.pdf. Accessed on 31.08.2022.

within the IDAE of an office to promote and support local community energy (including designing and implementing specific lines of guarantees and/or financing, providing technical assistance, promoting the joint acquisition of equipment and services, and identifying and disseminating best practice).

Elements of the enabling framework for RECs, as defined by RED II, are currently being developed. Poor access to information represents a key barrier for many REC initiatives, but several steps have been taken to improve the situation. Also access of RECs to financing has been facilitated (see below). The Spanish government commissioned a number of in-depth studies to assess the costs and benefits of self-consumption. Hence, in contrast to most other countries examined, the government has taken important steps to comply with the requirement of the RED II that Member States should develop a cost benefit analysis for distributed generation. Moreover, for CSC schemes, no grid fees are charged for the electricity exchanges within the scheme.

Dedicated support schemes covering different phases of REC development have been or are currently being developed. To a certain extent, Spain can be regarded as a showcase for the development of an integrated, holistic approach in supporting RECs. 100 million EUR will be mobilised to promote, support and develop RECs through the Recovery, Transformation and Resilience Plan. Furthermore, many regional and local authorities are utilizing ERDF funds to promote and develop RECs in their territories. This assistance normally includes subsidies and/or technical assistance to incipient initiatives. The Spanish COME RES partners suggest creating public or private-public contingency funds as collaterals for RECs when applying for loans. Additional measures proposed include 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), low interest loans and tax deductions (e.g., elimination of VAT for costs of RECs, income tax deductions for REC members).

The Spanish government also took measures to take 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. Moreover, in the recent auctions, special bidding windows have been created exclusively for ‘citizens-led, distributed PV generation projects’. There are also tax incentives available for CSC schemes.

The accomplishment of the legal and regulatory framework is primarily a responsibility of the national policy actors and administration whereas for the provision of financial assistance as well as of legal/technical support and advice all levels of government can (and already do) take action. 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 national) and some others having very capable and engaged local and regional administrations (in terms of administrative, technical and financial support). A coherent policy approach with pre-established competencies for each administration level might be a good way of integrating the different policy approaches. Regional administrations might create a network of financial and tax incentives/subsidies for RECs, as well as departments for technical and administrative support. Local authorities could be in charge of providing specific administrative support to RECs and could financially help by ceding municipal roofs or unused land.

Figure 23. Definition of RECs (Spain)

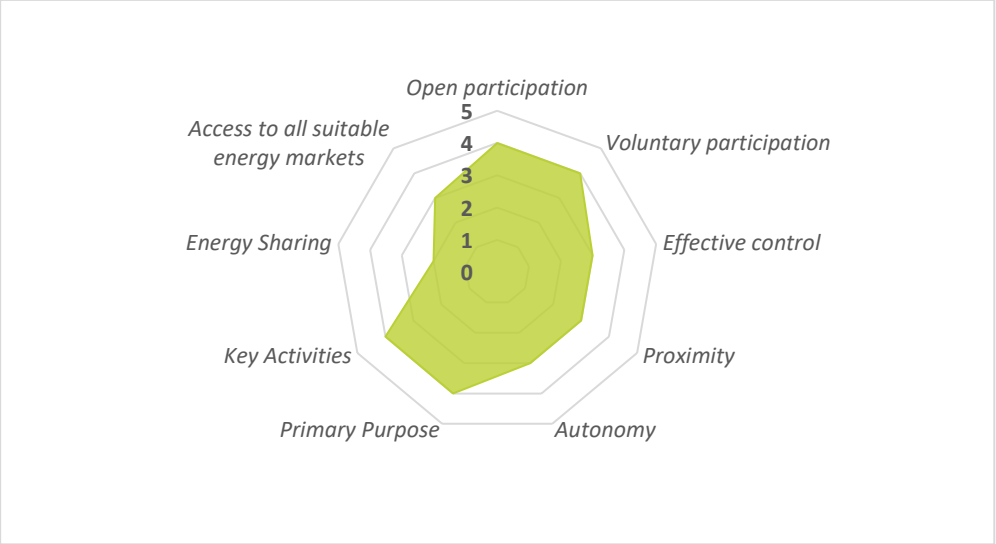


Figure 24. Enabling Framework (Spain)

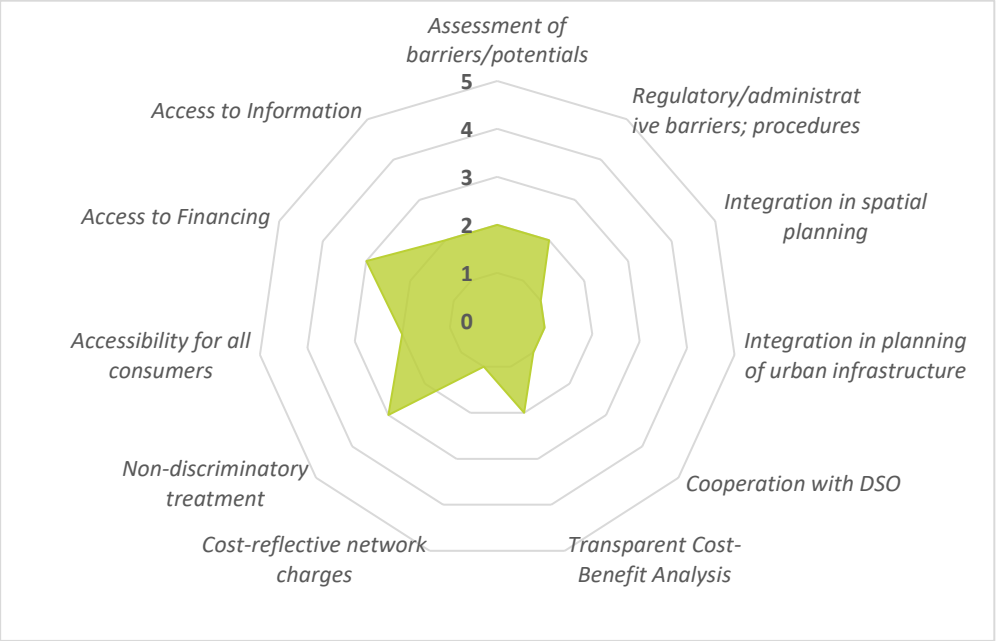
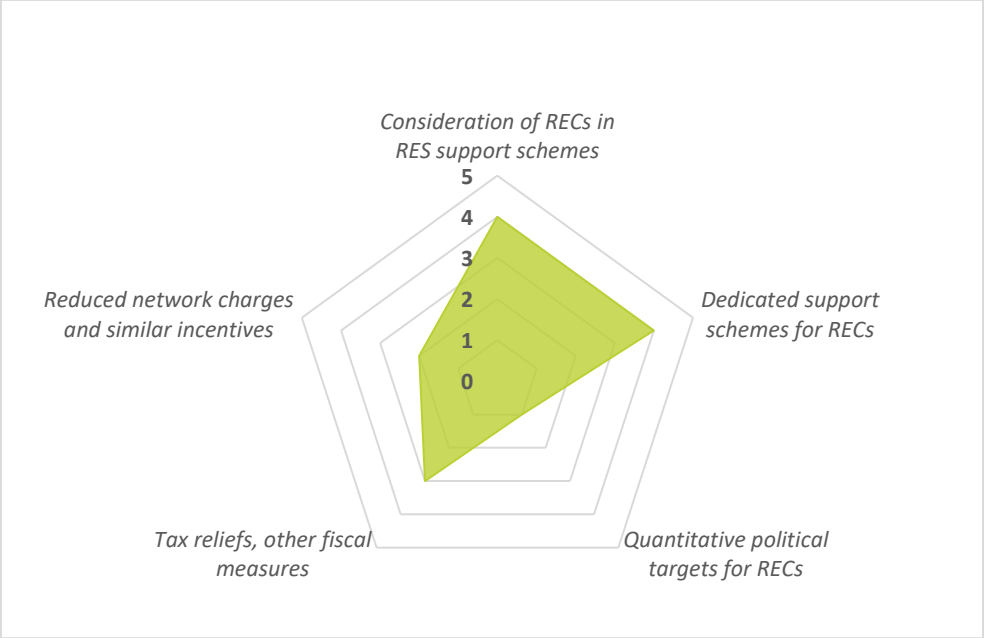


Figure 25. Support Schemes & Incentives (Spain)



6. Conclusion

The analysis of the efforts made in the nine COME RES countries to establish enabling frameworks for RECs shows a great variance between countries. Thus far, none of the countries under scrutiny has developed an enabling framework to promote and facilitate the development of RECs that would fully or largely comply with the minimum requirements contained in the RED II. Although the transposition of the RED II Directive is progressing in all countries, there are striking differences with respect to commitment, pace, and support. Among the countries analysed, **Italy, the Netherlands,** and **Spain** appear to be the most advanced countries in this respect. However, there are cases of countries where the enabling frameworks are still underdeveloped or fragmentary.

The differences start already by the definition of a REC. In **Belgium (Flanders), Italy, Latvia, Portugal and Spain,** RECs have been legally defined. In **Germany**, the pre-existing legal term 'citizen energy companies' serves as the equivalent for RECs. In **Belgium (Flanders)**, **Italy, Latvia, Portugal** and **Spain**, also CECs have been legally defined. In **the Netherlands**, both REC and CEC definitions are going to be merged into one single concept, called 'energy community'. However, so far only draft legislation exists. In **Poland**, draft legislation exists only for CECs. There are definitions of energy cooperatives and energy clusters. However, these do hardly comply with the provisions of the RED II for RECs. In **Norway**, neither RECs nor CECs have been formally introduced in the national legal framework to date.

Amongst the countries analysed, **Belgium (Flanders)** and **Italy** have made the most progress in transposing the definitions, rights, obligations and market activities of RECs (see also the graphical translations in the annex to this report). **Portugal** and **Spain** have also made good progress, albeit in those cases there are still several key provisions which are not transposed or specified yet. In **Latvia**,

amendments to relevant laws containing key provisions of RECs and CECs have been adopted in July 2022. These amendments provide a general framework and many details have still to be settled by subsequent governmental regulations. Although in **Germany** ownership of renewable energy installations by individuals or communities has a long tradition, the previous Federal government failed to timely and properly transpose the RED II and its provisions for RECs. Under the current government, the transposition process and the creation of an enabling framework gained momentum, but important transposition gaps still remain (e.g., energy sharing) and are likely to be dealt with within the planned reform of the electricity market design. In **the Netherlands**, most criteria of the RED II definition of RECs are covered in the draft legislation. In **Poland**, transposition is lagging behind. In **Norway**, EU directives do not automatically apply, but rather depend on negotiations between the EU and the EEA/European Free Trade Association (EFTA). RED II is still under review by the EEA/EFTA. In spite of some positive developments in the field of collective self-consumption at the building/block level, much work is still necessary to transpose the requirements of the RED II.

Formal compliance with the provisions of the RED II and literal transposition of the key principles and criteria ("copy and paste" approach) is by far not sufficient to effectively promote and facilitate the development of RECs. RED II contains many indefinite legal concepts that have to be 'filled with life'. These affect membership and governance aspects, spatial and system-related boundaries, but also technical parameters, activities in the energy markets and integration into energy markets. Depending on how governments interpret and specify those indefinite legal terms, transposition might turn out as a barrier or enabler for RECs.

The German experience reveals the pitfalls of ill-defined legal concepts. Several years ago, lax prequalification requirements for so called citizen energy companies and loopholes in the legal framework led to misuse of the concept of citizen/community energy by conventional market players. This has also led to a certain discreditation of the concept.[52] Hence, careful design of the single elements of the definition is key in order to yield the intended results and avoid misuse and unintended effects.

In several cases, RECs face relatively strict geographical or technical limitations. In **Spain**, for example, there is a spatial boundary of 500 m and certain technical restrictions referring to the maximum installed capacity and grid connection. Although in **Italy** the capacity limit for RES plants owned by a REC has been increased from 200 kW to 1MW, this threshold prevents the engagement of a larger number of citizens and small and medium enterprises. Also, in **Poland**, energy cooperatives face multiple restrictions.

Belgium (Flanders) and **Italy** can be regarded as frontrunners in the field of energy sharing. **Flanders** has chosen a phased roll-out starting with collective self-consumption on the building level followed by 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 energy shared within RECs. In this respect, **Germany,** can be regarded as a laggard. The reluctance to fully transpose can at least partly be explained by distributional fairness considerations. Concerns have been expressed

[52] This has been acknowledged by the Federal government in the annotations to the recently amended Renewable Energy Sources Act.

that reduced (grid) tariffs for RECs can potentially lead to higher costs for those consumers not participating in energy communities. This illustrates that measures should be taken in all countries to avoid social imbalances in the system, creating a risk of high system charges for low-income and vulnerable groups.

To date, many activities that RECs and CECs are entitled to carry out are not yet feasible in many Member States, e.g., due to a lack of suitable market frameworks, technical constraints (e.g., poor endowment of consumers with smart meters) or poor availability of relevant data. 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 rollout (e.g., **Belgium (Flanders), Italy**, **the Netherlands**, **Spain)**[53] and thus can count on favourable infrastructural framework conditions to facilitate additional market activities (e.g., peer to peer trade, energy sharing), whereas other countries are considerably lagging behind in this field (e.g., Germany).

Legal/technical support and financial assistance are essential ingredients for the successful development of RECs. The complexity of technical and administrative procedures including burdensome and lengthy authorisation and licensing processes provide a major barrier for RECs and other market actors in many countries (e.g., **Germany, Italy**, **Portugal**, **Spain**). Some governments, e.g., in **Germany** or **Italy** started to simplify and accelerate administrative procedures and reduce red tape. Further critical bottlenecks include a lack of measures to facilitate cooperation with DSOs. The use of the public grid is a key element of RECs and DSOs play an important role for the integration of RECs into the physical infrastructure and energy market.

Although transposition of European legislation is usually a task of the national governments, the creation of an effective enabling framework for RECs can be regarded as a multi-level governance task involving, national, regional and local governments.[54] In some of the countries like **Germany, Italy**, **Netherlands** and **Spain** promising promotional 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 incentives. In **Germany** and **Italy**, subnational measures have even inspired the national policy actors to adopt similar measures. In **Germany**, a number of federal states have set up measures to enhance community energy including citizen energy funds in Schleswig-Holstein and Thuringia or dialogue and networking platforms for community energy and energy cooperatives (North Rhine-Westphalia). Besides the national and regional governments, municipalities play an important role as initiators, promotors, facilitators, enablers and members of RECs. In their role as owners of land and property, municipalities may provide suitable sites for RES facilities operated by RECs. They may financially support RECs in the form of equity, by granting loans or start up financing. Moreover, they may assist RECs by providing information, by building trust and providing legitimacy to RECs. No less important, they may purchase the energy produced by RECs, therefore providing information and advice particularly for smaller municipalities and one stop shops to receive technical and financial support for RECs creation seems to be helpful.

[53] See for instance https://www.tripica.com/blog/smart-meter-deployment-the-impact-on-eu-households.
[54] Krug, M. et al. (2022). See footnote 23.

Access to financing seems to be a key problem in several countries like **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 designed (e.g., **Germany**, the **Netherlands**) to overcome this barrier. In most of the countries analysed, dedicated support schemes addressing energy communities have been lacking so far. Exceptions could be found in **Germany** 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 of RECs as an integral element with specific rules and funding streams. Generally, support schemes should preferably address different phases of REC development (pre-investment support, investment support, operational support). **Spain** provides a good showcase for such a holistic and integrated approach.

There is an overall trend in Europe including the nine countries analysed, 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. Price-based remuneration like feed in tariffs or premiums are increasingly being phased out. There is empirical evidence suggesting that auctioning schemes considerably increase the risks for all market actors, but particularly for community energy and other small actors creating prohibitive effects.[55] Therefore, RED II requires Member States to consider the specificities of RECs when designing support schemes. **Germany** introduced certain pricing privileges for energy communities under the auction system which turned out fairly ineffective. The current Federal government recently decided to exempt wind and solar projects by citizens' energy companies from the obligation to participate in auctions in order to enable unbureaucratic implementation, strengthen the diversity of actors and local acceptance. In **Spain**, special bidding categories have recently been created under the auction scheme exclusively addressing “citizens-led, distributed PV generation projects” which fulfil certain eligibility criteria. Furthermore, 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 the development of RECs. In **Italy** some regional administrations proposed targets for the establishment of RECs. For example, Lombardy announced in February 2022 its plans to establish 6,000 new RECs within five years generating an increase in installed photovoltaic power of almost 1,300 MW. 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.

[55] Jacobs, D., Dr.; Grashof, K.; Del Rio, P., Dr.; Fouquet, D., Dr. 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. 2020, 106.

Concluding, the question of whether a country is on the right track cannot be measured by a literal implementation of the EU provisions, but rather by a conducive market environment, a successful embedding in the national context and by the establishment of suitable and supporting framework conditions for RES in general and RECs in particular.[56] One of the most important lessons learned is that besides defining and allowing specific market activities, the creation of an effective enabling framework 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. That the national context always matters is not a truism. This applies the more to the transposition process. Each of the country analysed represents a different situation with regard to community initiatives and RECs in particular, Thus, whilst some countries can count on a long tradition, for some others these initiatives are a challenging novelty. It seems that the EU provisions and terms do not always take these differences sufficiently into account. Therefore, a copy paste approach cannot work.

The fact that even those countries with a satisfactory record in the transposition missed the deadline set by the European Commission delivers food for reflection. 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.

7. Next steps and outlook

This assessment provides insights of the situation as of 15 July 2022. Transposition and implementation are still ongoing in all countries analysed. The COME RES partners will present the findings of this policy assessment during a side event of the European Sustainable Energy Week 2022. The findings of this report will also be discussed within country desk events in the COME RES partner countries during the autumn and winter 2022/2023, policy roundtables and action plan proposals for the COME RES target regions. They will also be presented at the Council of European Energy Regulators (CEER) training workshop on Regulation of Energy Communities in September 2022. COME RES Deliverable 7.3 will formulate policy lessons and recommendations on the basis of this and other analyses undertaken in the COME RES project.

[56] Frieden, D.; Tuerk, A.; Antunes, A.R.; Athanasios, V.; Chronis, A.-G.; d'Herbemont, S.; Kirac, M.; Marouço, R.; Neumann, C.; Pastor Catalayud, E.; et al. Are We on the Right Track? Collective Self-Consumption and Energy Communities in the European Union. *Sustainability* 2021, 13, 12494. https://doi.org/10.3390/su132212494.

ANNEX

Individual country assessment reports

Country report: Belgium (Flanders)

Authors: Erika Meynaerts, Kelsey van Maris (VITO), Stavroula Pappa, Dirk Vasintjan (REScoop.eu)

1. Introducing definitions, rights and duties of RECs; corporate governance

Have RECs and CECs been formally introduced in the national legal framework? Please, indicate the respective legal acts.	Yes, in the Flemish Energy Decree[57] and the Energy Decision[58]. Belgium is a federal state, where the decision-making power is shared between the Federal government and three Regions (Wallonia, Flanders and the Brussels Capital Region) and three Communities (the Flemish, the French and the German-speaking Community). The Regions have important responsibilities in areas such as rational energy consumption, promotion of renewable energy, public transport, transport infrastructure, urban and rural planning, agriculture and waste management. The federal government is responsible for large parts of the fiscal policy. The federal government is also responsible for product policy, energy security, nuclear power, offshore wind. As such, each Region has to transpose the provisions on RECs and CECs and set up regional regulatory and enabling frameworks.
How have the following items been transposed? Is the legal definition of RECs in compliance with the RED II?	Yes, the legal definition of RECs follows RED II.

[57] https://codex.vlaanderen.be/Zoeken/Document.aspx?DID=1018092&param=inhoud&AID=1291904
[58] https://codex.vlaanderen.be/Zoeken/Document.aspx?DID=1019755&param=inhoud

(Art. 2,16 RED II) In which fields do you see transposition gaps?	
Type of legal entity	Not defined (but most likely only cooperatives and not for profit organisations comply because of the criteria stipulated in RED II, the Flemish Energy Decree and the Energy Decision of the *Flemish Minister of Energy*, that apply to RECs and CECs (see next cells). Also, the majority of the RECs that are currently registered on the website of the Flemish regulator of the electricity and gas market are renewable energy cooperatives and members of *REScoop Vlaanderen*.
Open and voluntary participation	There is open and voluntary membership for both RECs and CECs.
Eligibility to participate/Membership	Difference between CEC and REC: Membership is open to everyone in a CEC, e.g., citizens, local authorities, SMEs and large companies. Membership is more limited in a REC, e.g., citizens, local governments, and SMEs for whom energy is not the main commercial or professional activity.
Effective control	The Energy Decree defines control in the same way as the directives. For CECs the control is limited to natural persons, local authorities or small enterprises not involved in large-scale commercial activities and for whom the energy sector is not the main economic activity. For RECs all members have control over the activities of the REC.
Proximity	For RECs the Energy Decree stipulates that participation shall be limited by technical or geographical proximity, considering the objectives or activities of the REC. The *Flemish Government* may lay down criteria to define the concept of technical or geographical proximity as referred to in the Decree but has not done so up to this date.
Autonomy	It is a requirement that RECs must be autonomous from individual members, but there is no elaborated standard to ensure autonomy is maintained.

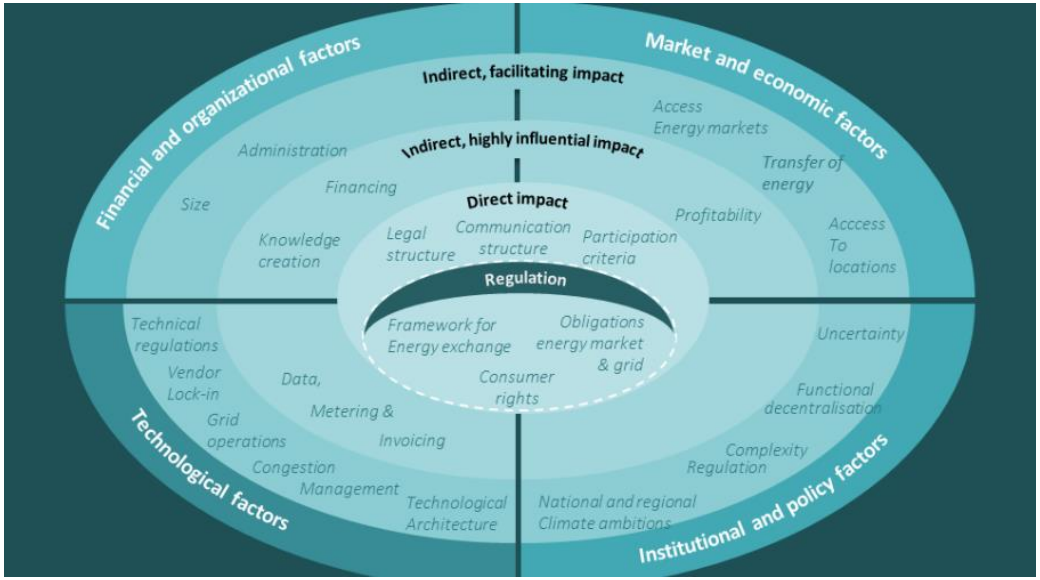
Primary purpose	Both CEC and REC have the main purpose to offer environmental, economic or social benefits. Profit is not a main goal but is allowed if subordinate to the main purpose.
Does the definition of RECs also cover the heating/cooling sector and renewable gases?	Yes, it explicitly states that the members can be electricity consumers, or consumers connected to a heating/cooling grid.
Are RECs legally entitled to **produce**, **consume**, **store** and **sell** renewable energy?	Yes, they are entitled to produce, consume, store and/or sell.
Are RECs legally entitled to **act as DSO**? Do you know of any practical examples in your country?	No, RECs are not entitled to act as DSOs.
Do the rights of RECs refer both to electricity and heating/cooling and RES based gases?	Yes, electricity and heating/cooling.
Is **collective consumption** as defined in Art. 21 RED II **within buildings/building blocks** (without using the grid) possible? Where do you see the main barriers for **jointly acting self-consumers**?	That is possible but all grid fees, taxes, VAT, public obligations, etc. will have to be paid. Hence, it is only possible to share and do something on the electricity cost component (which makes it less interesting and complex). In a first phase, the consumers would also need to have the same supplier.
Are RECs legally entitled **to share, within the REC, renewable energy** that is produced by the REC (using the grid)? Is there any **definition/regulatory framework for energy sharing** already in place? How is energy sharing regulated/promoted (e.g., exemption of fees, charges etc.)?	Yes, sharing is allowed by the Decree. The Decree sets out a regulatory framework for energy sharing (in chapter II, article 7.2.1 and further). With regard to CECs and RECs, it stipulates that in the agreement that participants have with the CEC or REC on their rights and duties, the distribution key for energy sharing has to be taken up. As mentioned before, for every kWh shared all the grid fees, taxes, VAT, public obligation fees, etc. will have to be paid. Given the complexity of the practical implementation of energy sharing, Flanders has chosen a phased roll-out. The DSO *Fluvius* will gradually foresee protocols to make energy sharing possible in practice. Since 01/01/2022 collective self-consumption within one building is possible (see

	above). Since 01/07/2022 peer-to-peer trading will be possible. In a later phase (01/01/2023), it will become possible for energy communities to share energy between members of the community.[59] In the months ahead, three diverse pilot projects will start in four out of five Flemish provinces: one in an apartment block with PV on the roof, one in a company with their workers and one with a local authority/social service with vulnerable households. The DSO *Fluvius* will contact the suppliers who wish to cooperate. The intention is to learn from obstacles and problems when they arise in practice in order to overcome them when implementing energy sharing at a larger scale.
How is energy sharing regulated/promoted (e.g., exemption of fees, charges etc.)?	See above.
Which **institutional body** is responsible for registering RECs/CECs? Briefly explain.	The regulator of the Flemish Energy and Gas market *VREG* has a form on their website that CECs and RECs have to fill out to formally register (the CECs and RECs have the duty to report on their existence). To date (19/05/2022) 33 have registered of which 31 are energy cooperatives.
How many RECs (pursuant to RED II) have been officially registered in your country?	To date (19/05/2022) 18 have registered as RECs of which 16 are energy cooperatives, one is a private limited company and one is an association of co-owners (apartment building). The Flemish regulator does not check their compliance. This also refers to the text above that the Minister wants to start with an experimental approach.
How many CECS (pursuant to IEMD) have been officially registered in your country? (estimate)	To date (19/05/2022) 15 have registered as CECs, all of them energy cooperatives and member of *REScoop Vlaanderen*. All of them also registered as RECs. The Flemish regulator does not check their compliance.

[59] https://www.vlaamsparlement.be/nl/parlementair-werk/commissies/commissievergaderingen/1601950/verslag/1604347

2. Assessment of enabling frameworks

Which are the **key policy actors and public authorities responsible** for developing an enabling framework for RECs in your country? (e.g., national/regional ministries, national/regional public authorities, public/state agencies?)	Regulator of the Flemish Energy and Gas market *VREG* and the *Flemish Energy and Climate Agency* (*Flemish Minister of Energy*).
Which are other key **actors** (non-public) promoting the development of RECs? (e.g. community energy associations, etc.)	*REScoop Vlaanderen* (Flemish federation of renewable energy cooperatives) and *Flux 50* (membership organization that facilitates cross-sector collaboration between energy, IT and building companies to enhance the competitiveness of the Flemish smart energy industry in the transition towards low carbon systems), *Bond Beter Leefmilieu (BBL)* (Flemish environmental umbrella organisation) advocates for a transition to 100% renewable energy and supports renewable energy communities across Flanders. *REScoop Vlaanderen* is also member of *BBL*.
What have been **key driving forces** and **enablers of community energy** in your country so far? (before RED II was adopted)?	Key driving forces and enablers: ○ Belgium has a long historical cooperative tradition. People are familiar with the legal structure and the cooperative principles. In 2013 *REScoop.eu* was created to promote the cooperative principles in the energy sector at an EU level. ○ Green certificate system for PV and wind (feed in premium system) ○ Close cooperation with local governments that value citizen participation ○ Sharing knowledge and skills with other energy cooperatives to reinforce each other (on a voluntary basis).
Has the national or regional government(s) carried out any **assessment of the existing barriers and potential of development** of REC? (Art.22,3 RED II)? What are the	An assessment of existing barriers for collective activities has been made by *VITO* on the request of the *Flemish Energy and Climate Agency*. A

main findings and recommendations? To what extent have these been considered by the government?	summary of this assessment is publicly available[60] with an overview of five main barriers for collective activities (Finance and Organization, Market and Economy, Technology, Institution and Governance, Regulation) and some key recommendations.  ○ Added value and goal have to provide guidance and direction. ○ Existing profitability incentives do not sufficiently consider the added value to the 'broader energy system' for certain collective activities. ○ Additional incentives can be necessary but have to be aligned with specific goals.

[60] https://www.energyville.be/sites/energyville/files/downloads/2020/infographic_energycommunities_engels.pdf

	○ An economic framework and system needs should be the guidance for the role of the collective activity when it comes to flexibility and other rules. ○ Collective activities can be suitable for specific target groups. Nevertheless, they require adapted policy tools. ○ Obligations have to be proportionate and consider possible consequences for third parties. ○ Implementing systems for measurement and calculation needs to be done independently and efficiently (regarding cost and time). ○ Room for choice and flexibility for collective activities is essential and the effectiveness of the policy framework has to be supervised. As the regulatory and enabling framework is still under development, no assessment can be made about the extent to which the abovementioned recommendations are considered.
Do competent authorities at national, regional and local level include **provisions** for the **integration and deployment of renewable energy**, including for **RECs** in the field of **spatial planning**? Do competent authorities at national, regional and local level include **provisions** for the **integration and deployment of renewable energy**, including for **RECs** when designing, building and renovating **urban infrastructure**, industrial, commercial or residential areas and energy infrastructure? (Art.15,3 REDII)	In the spatial policy plan of Flanders (December 2018) it is stated that spatial development supports the transition to renewable energy sources considering the following priorities: the development of space for energy production is priority in the vicinity of the end user, then in areas with large infrastructure (e.g., along line infrastructures) and only as a last resort in open space. In the National Energy and Climate Plan it is stated that municipalities should draft a spatial energy strategy. This spatial energy strategy can be partially translated into a spatial policy plan by including spatial preconditions for certain areas. The *Flemish Government* provided tools (heat map, dynamic energy atlas, etc.) and a guidebook on regional spatial energy strategies to support regional and local actors. Exemplarily, the Region of South-West Flanders has drafted a spatial energy strategy. The provinces of Eastern Flanders and Antwerp introduced 'energy landscapes'. The aim of this strategic project is to use the natural resources

	of the local landscape and to match supply and demand. As such, energy production and storage become an essential function in spatial planning. Together with the local authorities, the provinces look for tailor-made measures to both save energy and generate more renewable energy. In doing so, they ensure that the generation and storage of energy are given a qualitative place in the landscape. There are no examples of spatial planning with explicit provisions on renewable self-consumption nor RECs. Building permits and energy efficiency standards make it virtually impossible to build new dwellings or non-residential buildings or renovate those thoroughly without a source of renewable energy production (usually PV). In case the latter is not possible, the possibility exists to comply with energy performance standards by participating in a renewable energy project (in Flanders) with a minimum annual renewable energy production of 15 kWh per m^2 ground area.
In which areas do you identify key r**egulatory and administrative barriers** for RECs? Have national/regional governments recognized and addressed these barriers as well? Have they undertaken measures to remove those barriers (Art.22,4 RED II)?	During the 2nd country desk meeting (back-to-back with policy lab) the participants identified regulatory and administrative barriers as one of the key priorities on which the enabling framework for RECs in Flanders should focus. Exemplarily, regulation and financial support mechanisms should be adapted 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 self-consumption). What we currently observe is that policy measures specifically targeting RECs are not implemented and that existing policy measures to support the uptake of RES in general do not (sufficiently) consider the specific characteristics of RECs.
Are RECs subject to **fair, proportionate and transparent procedures,** including **registration and**	The energy communities must notify their existence to *VREG* (regulator). *VREG* is responsible for the registration and monitoring of energy

licensing procedures? (Art.22,4 RED II) Where do you see shortcomings? Are there any procedures tailored specifically for RECs?	communities. Notification must indicate how the energy community meets the required criteria (voluntary entry, autonomy, control, ownership, objectives). One drawback is that there is no requirement to make this information transparent. A list of registered RECs and CECs is available on the website of *VREG*, but it is not clear how frequently this is updated. The registered RECs and CECs can obtain a proof of registration from the regulator.
To what extent do the responsible authorities take measures providing that the **relevant DSOs cooperate with RECs** to facilitate energy transfers within RECs? (Art.22,4 RED II) Please, describe the scope of respective regulations.	Flanders has chosen for a phased roll-out (see above): Since 01/01/2022 collective self-consumption within one building is possible. Since 01/07/2022 peer-to-peer trading is possible. In a later phase (from 01/01/2023), it will become possible for energy communities to share energy between members of the community. The Flemish DSO *Fluvius* will carry out the transactions required for energy sharing and selling. The DSO will register the different forms of energy exchange, check certain participation conditions, e.g., whether a digital meter is available on a quarter-hourly basis and report the purchased, injected and shared energy volumes to the energy suppliers. [61,62]
Do RECs benefit from any preferential network charges or any other preferential treatment with regard to network charges/tariffs etc.?	No.
Have the national competent authorities developed a **transparent cost-benefit analysis** of distributed energy sources? Do, in your view, the relevant fees, **charges, levies and taxes** ensure that RECs contribute in an **adequate, fair and balanced way** to the **overall cost sharing** of the system taking into account the costs and	No.

[61] https://www.vlaamsparlement.be/nl/parlementair-werk/commissies/commissievergaderingen/1601950/verslag/1604347

[62] https://www.fluvius.be/sites/fluvius/files/2021-12/protocol-energiedelen.pdf

benefits RECs can provide to the energy system (Art.22,4 RED II)	
Are RECs subject to any **discriminatory treatment** with regard to their **activities, rights and obligations** as final customers, producers, suppliers, DSOs, or as other market participants? (Art.22,4 RED II)	There is a discrimination between people and businesses with their own roof and people and businesses, including RECs, with a shared roof. (A person with a PV installation on his/her roof instantly or delayly (with a battery or with net metering) avoids net charges, VAT and other taxes, while people with a shared roof (apartment block) or as a member of an energy community with a shared installation cannot avoid net charges, VAT and other taxes).
Is the participation in the RECs **accessible to all consumers**, including **low-income or vulnerable households?** (Art.22,4 RED II) Are there any **specific policy measures** to facilitate the participation of low-income and vulnerable groups?	Yes, participation is open to all consumers as stipulated in the Decree. No specific policy measures are implemented by the key actors responsible for the implementation of the enabling framework. Some of the existing renewable energy cooperatives have taken specific measures to facilitate the participation of low-income and vulnerable consumers. (Examples comprise the collaboration with social welfare offices and social housing companies, the participation in projects which have a social aspect or focus, and the legal form some of these RECs have, where they form a cvba-so (cvba = coöperatieve vennootschap met beperkte aansprakelijkheid (cooperative company with limited liability); so = met sociaal oogmerk (with a social purpose)) which implies that (at least 15% of) the profits will be used for a social purpose. For more detailed information, see best practices in Flanders included in COME RES Deliverable D5.2.[63]
Are there any policy measures/tools available or planned **to facilitate access of RECs to finance**? (Art.22,4 RED II) (e.g., investment support, start-up financing, risk capital). Please, also consider cohesion funds and ESIF,	There are no policy measures or tools available to facilitate access of RECs to finance. Information and support are provided by the federations for renewable energy cooperatives (*REScoop.eu* and *REScoop Vlaanderen*) to their members.

[63] https://come-res.eu/fileadmin/user_upload/Resources/Deliverables/Del_5.2__Good_Practice_Portfolio.pdf

national resilience and recovery fund. Please briefly describe.	
Are there any measures/tools available/planned **to facilitate access to information**? Is there any **legal/technical support** or **institutional support**? Please briefly describe.	There are no specific measures for RECs available or planned. Information and support are provided by the federations for renewable energy cooperatives (*REScoop.eu* and *REScoop Vlaanderen*) to their members.
Is regulatory and capacity-building support provided **to public authorities** to enable and set up RECs, or to participate directly in RECs? (Art.22,4 RED II)	No.
Are there any rules in place to secure the **equal and non-discriminatory treatment of consumers** that participate in the REC?	No.
Are there any **national or regional objectives or targets for RECs** and **community energy** in general? (quantitative and/or qualitative)	No.
Are there any **dedicated support schemes for RECs/community energy** in general providing **operational support**?	No.

3. Assessment of RES support scheme[64] designs

What are the **key existing support schemes for renewable energy** in the field of electricity? (e.g.,	Green Certificate System: feed in premium system for renewable energy in the field of electricity guaranteeing a certain ROI. This system will be

[64] In accordance with Art.2 of RED II **support scheme** means 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.

investment support via cohesion funds and ESIF, resilience and recovery funds; operational support via feed in premiums, competitive bidding/auctions etc.) Are there any modifications to existing support schemes/new support schemes planned in the future?	gradually replaced by competitive bidding/auctions: now already for (medium sized) PV and (small and medium sized on shore) wind. Based on the decision of the *Flemish Council of Ministers* (25/02/2022)[65] the scope of the call system[66] for mid-size PV systems from 25 kW to 5 MW is extended to include apartment buildings, CECs and RECs as a subcategory (VR 2022 2502 DOC.0205/2BIS).[67] For the first call(s) a threshold will be set of at least one housing unit or member of the energy community per 5 kWp. After each call the threshold which is set by ministerial decree is evaluated and if necessary adjusted. ERDF: in the period 2014 – 2020 no community energy projects were approved within ERDF Flanders.[68] Just Transition Fund: Flanders does not receive any funding from the Just Transition Fund.[69] Next Gen EU: no funding is foreseen for community energy projects within the Flemish programme "Veerkracht Vlaanderen".[70] LEADER[71]: in the period 2014 – 2022 no community energy projects were approved within LEADER.

[65] https://beslissingenvlaamseregering.vlaanderen.be/document-view/621883A06BB7B593CFC17FAF

[66] The 'Green Power Call', is a tender organised by the Flemish government and serves as its investment support programme for mid-size PV installations and small and medium-sized wind turbines. More information on: https://www.energiesparen.be/call-groene-stroom

[67] https://beslissingenvlaamseregering.vlaanderen.be/document-view/621883BD6BB7B593CFC17FB1

[68] More information: https://www.vlaio.be/nl/andere-doelgroepen/europees-fonds-voor-regionale-ontwikkeling/ontdek-efro-vlaanderen/overzicht-van

[69] More information: https://www.vlaamsparlement.be/nl/parlementair-werk/commissies/commissievergaderingen/1528204/verslag/1532106

[70] More information: https://publicaties.vlaanderen.be/view-file/47970

[71] More information: https://ruraalnetwerk.be/projecten/maatregelen-pdpo-iii?title=&shs_term_node_tid_depth=55&field_project_jaar_value%5Bvalue%5D%5Byear%5D+class%3D=&field_project_provincie_value=All&field_project_locatie_value=&field_local_group_tid=All

To what extent do national and regional governments **take into account the specificities of RECs** when designing support schemes for RES-E? (e.g., special rules, preferential treatment)	No special rules/ preferential treatment.
If **auctions** represent the key support scheme for RES-E in your country: have any of the following measures been implemented or are such measures planned? Please briefly describe.	
*Exemptions for RECs from taking part in auctions/ Use of the **de minimis rule**[72]*	No.
*Special **bidding windows/categories** for RECs within the auction system (e.g., like in Ireland)*	No.
*Special REC related **pre-qualification criteria** all bidders have to fulfil in order to take part in the auctions (e.g., minimum number of shares offered to RECs/local communities, existence of a community engagement plan)*	Recent scope extension of the tender system to also include a subcategory for PV on apartment buildings and CECs/RECs. For the first call(s) a threshold will be set of at least one housing unit or member of the energy community per 5 kWp. After each call this threshold which is set by ministerial decree is evaluated and if necessary adjusted.
***Multi-criteria assessment** for selection of successful bids (i.e., selection not only based on the offered price/remuneration level, but also on social criteria, e.g., community co-ownership etc.)*	No.
*Special **pricing rules** for RECs (e.g., uniform pricing*	No.

[72] The new **Climate, Energy and Environmental State Aid Guidelines (CEEAG) (https://ec.europa.eu/competition-policy/sectors/energy-and-environment/legislation_en)** provide additional flexibility for RECs, allowing Member States to exempt REC projects and SME-owned projects below 6 Megawatts (MW) of installed capacity from the competitive bidding requirement. RECs and small and micro enterprises may also develop wind projects up to 18 MW without competitive bidding. More generally, where competitive bidding does apply, the CEEAG enable Member States to design tenders in a way which enhances the participation of energy communities, for example by lowering pre-qualification requirements.

in Germany, bonus payments in France)	
Others	No.
Are the existing/proposed measures under section 3 sufficient to effectively facilitate the development of RECs? What should be improved?	As the enabling framework is still under development, no conclusions can be drawn yet about its effectiveness to facilitate REC development. What we currently observe is that policy measures specifically targeting RECs are not implemented and that existing policy measures to support the uptake of RES in general do not (sufficiently) consider the specific characteristics of RECs.
Which other accompanying support measures specifically targeting RECs do exist in your country (in addition to those mentioned above in sections 2 and 3; e.g., R&D programmes, regulatory sandboxes, others)?	Regulatory sandbox:[73] Thor Park has been recognised as the first regulatory sandbox for energy in Flanders. Together with the *EnergyVille Research Institute* using Thor as a living lab, this forms an ideal environment for experiments on energy communities.

4. Novel and promising policy measures

Do you know of any **novel or promising policy measures** on a national/regional/local level **in your country** which may serve as a model for other countries/regions/municipalities in order to facilitate the development of RECs? If possible, provide a short description.	Municipalities that look for developers of RES projects on their land and roofs that allow their citizens to invest and control the installations. For instance, the municipality of Geraardsbergen stipulates in a decision of the municipal council that it aims for at least 50% of direct participation in RES projects on its territory by means of energy cooperatives that comply with the ICA principles[74]. The municipality of Eeklo explicitly included the requirement of direct participation of its inhabitants in the development of wind project on its territory.[75]

[73] For more information see https://www.energyville.be/en/news-events/thor-park-first-regulatory-sandbox-energy.
[74] https://www.rescoopv.be/sites/default/files/190618_GR_Klimaatplan_beleidskader%20rechtstreekse%20participatie.pdf
[75] https://www.rescoopv.be/sites/default/files/GRB_EEKLO_OZ%2014%20Beleidsvisie%20concentrazone%20windturbines%20Eeklo.pdf

	Also, the federal government has foreseen the possibility of citizen participation in the new offshore wind tenders in the Royal Decree of 12 May 2019, on the basis of the Electricity Act, article 6.3 9. As such, the *Federal Government* is also giving substance to article 714 of the Civil Code, which grants equal right of use of commons (e.g., wind) to all citizens.
Do you know of any policy measures adopted **in other countries** which may serve as a **model for your country** in order to facilitate the development of RECs? If possible, provide a short description.	Scotland (e.g., Community and Renewable Energy Scheme CARES) and Ireland (e.g., support scheme RESS with special bidding windows and capacity building support for RECs), the Netherlands (revolving fund, political agreement that for all new wind and solar projects 50% ownership should be offered to the local community). [76]

5. Overall assessment

Where do you see the most **urgent gaps/needs for policy action**? Which elements of the enabling framework are of highest importance?	As the enabling framework is still under development, no conclusions can be drawn yet about its effectiveness to facilitate REC development. What we currently observe is that policy measures specifically targeting RECs are not implemented and that existing policy measures to support the uptake of RES in general do not (sufficiently) consider the specific characteristics of RECs.
Which actions should be taken at which level of government to put those priority elements into action?	During the 2nd country desk meeting (back-to-back with policy lab) the participants identified key priorities on which the enabling framework for RECs in Flanders should focus and possible actions: ○ Regulatory and administrative barriers: e.g., regulation and financial support mechanisms have to be adapted to consider the specific characteristics of RECs which often have small scale RES projects

[76] https://www.rescoop.eu/uploads/rescoop/downloads/Energy-Communities-Transposition-Guidance.pdf

	and a primary aim to share the energy produced amongst their members (and not to maximize the self-consumption) ○ Non-discriminatory treatment of RECs: e.g., 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. Also, a tax shift from electricity towards natural gas to make investments in RES electricity production and district heating networks more attractive. ○ Network charges: e.g., cost-benefit analysis so that cost advantages can be allocated if and where energy communities can offer advantages to the net. ○ Access for vulnerable and low-income households: e.g., allow customers of the social energy supplier (i.e., the DSO in Flanders) to participate in energy communities. Access to information and financing: e.g., umbrella organization, such as in Prague or Scotland, which provides information, administrative and financial support to local RECs.
Is there any strategic and coherent policy approach in promoting RECs noticeable? Do the different levels of government (national-regional-municipal) inhibit or reinforce each other when creating an enabling framework for RECs? How could coordination between the national and sub-national levels of government be improved?	The enabling framework for RECs is mainly developed at the regional level with no active involvement of the local governments. The approach that is followed for implementing the enabling framework is not transparent. Some of the municipalities take initiatives on the local level to promote direct participation in RES projects on their territory (see above) or public land/buildings but these municipal council decisions are not legally enforceable. A Flemish decree or decision is needed, such as the participation plan in the Netherlands, to make it legally enforceable.
In your view, does, the RED II cover all elements of an “enabling framework”? Are there any measures which are	Non-exhaustive list of some aspects that are missing (note: these are some reflections of *REScoop.eu* and *VITO*, this was not discussed with the Flemish stakeholders): regulations on local energy mapping and planning

missing? Which additional measures do key stakeholders propose for your country?	and public procurement rules for projects that are being developed by local authorities and energy communities, regulation on participation of energy communities to offshore wind projects and provisions for cross-border energy communities, also some clarification or support measures for energy communities and energy poverty.

Country report: Germany

Authors: Michael Krug, Lucas Schwarz, Maria Rosaria Di Nucci (Freie Universität Berlin)

1. Introducing definitions, rights and duties of RECs; corporate governance

Have RECs and CECs been formally introduced in the national legal framework? Please, indicate the respective legal acts.	The legal term of "citizens' energy company" (*Bürgerenergiegesellschaft*) was defined in the Renewable Energy Sources Act (EEG) already in 2017. Citizens' energy companies that fulfilled the respective eligibility criteria defined in the EEG benefitted from certain privileges under the auctioning scheme in the field of wind energy. A citizens' energy company has been so far defined as *"any company, (a) which consists of at least ten natural persons as voting members or voting shareholders, (b) in which at least 51% of the voting rights are held by natural persons who have been registered for at least one year prior to the bid submission (…) in the district/independent city in which the proposed onshore wind energy facility is to be located; and (c) in which no member or shareholder of the company holds more than 10 percent of the voting rights in the company (…)."* The concept of a "citizens' energy company" enshrined in the EEG showed certain parallels with the definition of RECs contained in Art. 2(16) of RED II, although with a very limited scope of application (wind energy). In April 2022, the new federal government of Social Democrats, Greens and Liberals presented an extensive draft law amending the EEG (as well as the Wind Energy at Sea Act, the Energy Industry Act, the Federal Requirements Plan Act, and the Grid Expansion Acceleration Act) and the existing definition of "citizens' energy company", to achieve full compliance with RED II. Further amendments were added during the parliamentary procedure and finally adopted on 7th July 2022. The new EEG will take

	effect on 1st January 2023 (exception: the new remuneration rates are to be applicable conditionally already in 2022).[77] The new definition reads as follows: *"Any cooperative or other company, (a) which consists of at least fifty natural persons as voting members or voting shareholders, (b) where at least 75 % of the voting rights are held by natural persons living in a postal code area that lies completely or partly within a radius of 50 kilometres around the planned plant (…), (c) where the voting rights which are not held by natural persons, are exclusively held by micro, small or medium-sized enterprises (…) or local authorities as well as respective mergers, and (d) in which no member or shareholder holds more than 10 percent of the voting rights in the company, whereby the voting rights under b, as a rule, have to be associated with a corresponding actual possibility of exerting influence on the company and participating in decisions of the shareholders' meeting (…)."* Nevertheless, there are still several transposition gaps. The definition of citizens' energy companies in the EEG has still a limited scope of application (wind energy, PV) and there is no explicit equivalent for other types of RES, let alone the heating/cooling sector. The purpose of RECs as defined in Art. 2(16) has no explicit equivalent in the EEG. Although many of the rights and possible activities of RECs specified in Art. 22(1) and (2) are not explicitly mentioned in German law, they are also not forbidden. Energy sharing is theoretically possible, but practically difficult due to economic and administrative constraints (see below). The recent amendments to the EEG (July 2022) have been accompanied by a resolution of the Parliament requesting the government to enable energy

[77] https://www.bmwk.de/Redaktion/DE/Downloads/Energie/0406_ueberblickspapier_osterpaket.pdf?__blob=publicationFile&amp%3Bv=14

	sharing and collective self-consumption. However, the governmental plans are unclear for the time being.[78] Regarding the transposition of the provisions for citizen energy communities (CECs) enshrined in Articles 2(11) and 16 of the Internal Electricity Market Directive ((EU) 2019/944) (IEMD), we refer to the justifications of the previous government of Conservatives and Social Democrats (Merkel IV), accompanying the latest amendments to the Energy Industry Act (*Energiewirtschaftsgesetz*) of 2021: "*Article 16 of Directive (EU) 2019/944 provides that associations of citizens may act jointly in the electricity market. The directive calls these associations "citizens' energy communities". The merger of citizens into legal entities is already possible under German law, for example also within the framework of a cooperative. Against this background, it is not necessary to create a new legal form for this purpose. The requirements for a citizens' energy community can be met within the framework of existing law.*"[79] However, this argumentation overlooks that citizen energy communities do not need any specific legal form and that the IEMD provides CECs with an enabling regulatory framework including the entitlement of electricity sharing, fair treatment, a level playing field and a well-defined catalogue of rights and obligations. In our view, these issues deserve appropriate transposition. But, so far, also the new government refrained from introducing any additional legal definition complying with the criteria of a "citizen energy community" as defined in the IEMD. The wording of the legal term "citizens' energy company" which exists in the EEG already since 2017 resembles very much that of a "citizen energy community" as defined in the IEMD

[78] https://www.buendnis-buergerenergie.de/aktuelles/news/artikel/2022-7-7/fortschritte-und-vertane-chancen-im-eeg-2023
[79] https://www.bmwi.de/Redaktion/DE/Downloads/Gesetz/gesetzentwurf-enwg-novelle.pdf?__blob=publicationFile&v=4

	although it now serves as the German equivalent for a REC pursuant to the RED II. This may create some confusion.
How have the following items been transposed? Is the legal definition of RECs in compliance with the RED II? (Art. 2,16 RED II) In which fields do you see transposition gaps?	
Type of legal entity	The amendments to the EEG of July 2022 that aim to bring the definition in line with the RED II do not impose any restrictions on the legal form. The new EEG mentions "cooperatives" and other "companies". The most common legal forms for energy communities in Germany are: registered cooperative (*eingetragene Genossenschaft, eG*); limited partnership with a private limited company as a general partner *(Gesellschaft mit beschränkter Haftung und Compagnie Kommanditgesellschaft, GmbH & Co. KG*[80]*)*; limited liability company (*Gesellschaft mit beschränkter Haftung, GmbH)*; registered association (*eingetragener Verein, e.V.*); civil law partnership (*Gesellschaft bürgerlichen Rechts, GbR*). Cooperatives are the most common legal form of CE initiatives investing in rooftop PV facilities, whereas community wind farm projects are mostly organized as closed-end funds under the legal form of a *GmbH & Co. KG*, i.e., a specific hybrid of a limited liability company and a limited partnership, or a *UG (haftungsbeschränkt) & Co. KG* which is a modification of the GmbH & Co. KG.
Open and voluntary participation	In principle, participation in citizens' energy companies is open and voluntary although this is not explicitly mentioned. Final customers, in particular households, can join such entities or equivalent organisations

[80] A related legal form is a limited partnership with a limited entrepreneurial company as a general partner (*Unternehmergesellschaft (haftungsbeschränkt) & Co. KG; UG (haftungsbeschränkt) & Co. KG*). A limited entrepreneurial company is a modification of the private limited company.

	that fulfil the criteria of a REC, even though the term REC has not been completely transposed to German law yet.
Eligibility to participate/Membership	The recent amendments to the EEG endorsed by the new federal government specify that membership in a citizens' energy company is limited to natural persons, local authorities, micro enterprises and SMEs.
Effective control	So far, the definition of "citizens' energy company" enshrined in the Renewable Energy Sources Act envisaged that at least 51% of the voting rights had to be held by natural persons who had their main residence for at least one year prior to the bid submission in the urban or rural district in which the proposed onshore wind energy facility will be located. The recently adopted amendments to the EEG increased this threshold to 75% and increased the geographical boundary (proximity) (see below). Furthermore, the one-year minimum threshold has been lifted.
Proximity	The initial definition of "citizens' energy company" enshrined in the EEG envisaged that the natural persons that hold at least 51% need to have their main residence in the urban or rural district where the respective wind energy facility is located. The recently adopted amendments to the EEG of July 2022 envisage that at least 75% of the voting rights must be held by natural persons living in a postcode area that lies completely or partly within a radius of 50 kilometres around the planned plant. In the parliamentary procedure the leading associations of cooperatives and citizen energy in Germany prevailed with their argument that the initial geographical boundary (urban/rural district) was too restrictive and left out

	many existing energy cooperatives, which often have larger geographic reach.[81,82]
Autonomy	The initial definition of “citizens’ energy company", introduced into the Renewable Energy Sources Act in 2017 envisaged that no member or shareholder should be allowed to hold more than 10% of the voting rights. The recently adopted amendments to the EEG of July 2022 envisage to keep this rule.
Primary purpose	Neither the previous definition of a citizens’ energy company nor the amended definition adopted in July 2022 provide any statements regarding the primary purpose of these entities. Pursuant to the RED II, the primary purpose should be "to provide environmental, economic or social benefits to its shareholders or members or to the local areas in which it operates” (RED II, Article 2(16)). In many cases, particularly if the legal form is that of a limited liability company or closed end fund resp. GmbH & Co. KG (see above). The generation of profit and the provision of annual payments to the shareholders are certainly key objectives of the company, although the projects also pursue social and environmental targets. In such cases the main purpose of those companies could be contested.
Does the definition of RECs also cover the heating/cooling sector and renewable gases?	Not explicitly. There is no equivalent of citizens’ energy communities in the field of heating/cooling or renewable gases. The initial definition of a citizens’ energy company included in the EEG from 2017 had an exclusive focus on wind energy. The recently adopted amendments to the EEG of July 2022 extended the scope of application by including PV. Projects of **citizens’ energy companies in the field of wind energy** (≤ 18 MW) and

[81] Bündnis Bürgerenergie, 2022, Stellungnahme des Bündnis Bürgerenergie zum Referentenentwurf zum EEG 2023, Retrieved from https://www.buendnis-buergerenergie.de/fileadmin/user_upload/downloads/Positionspapiere/Stellungnahme_BBEn_zum_Referentenentwurf_des_EEG_2023.pdf

[82] DGRV Bundesgeschäftsstelle Energiegenossenschaften, 2022, Stellungnahme der Bundesgeschäftsstelle Energiegenossenschaften beim DGRV zum Entwurf eines „Gesetzes zu Sofortmaßnahmen für einen beschleunigten Ausbau der erneuerbaren Energien und weiteren Maßnahmen im Stromsektor“ (EEG 2023 Ref-E); Retrieved from https://www.dgrv.de/wp-content/uploads/2022/03/Stellungnahme_EEG_2023_REFE_DGRV.pdf

	ground-mounted or rooftop **PV** (≤ 6 MW) will be exempted from the obligation to participate in the auctions.
Are RECs legally entitled to **produce**, **consume**, **store** and **sell** renewable energy?	So far, the definition of "citizens' energy companies" had a limited scope of application and referred exclusively to **electricity production** from wind energy. The recently adopted amendments of July 2022 failed to **explicitly** define the rights and possible activities of RECs as listed in Art. 22(2) of RED II. Still, citizens' energy companies are mentioned in the context of electricity generation. Although not explicitly entitled by law, energy communities may in principle not only **produce** electricity and other forms of energy**,** but also **consume, store** and **sell energy** and there are many real examples for these activities. They may also act as **aggregators**. A survey among energy cooperatives in Germany conducted in 2021 revealed that 80% of the responding energy cooperatives are engaged in the **generation of electricity from PV**, 30% in the **generation of electricity** from **wind**, 19% in the **production of energy from biomass/biogas**, 15% in the **energy production** from other sources, 36% in the **supply of electricity**, 11% in **energy storage**, 17% in the field of **heating network operation**, 17% in **e-mobility** and 15% in **energy efficiency.**[83]
Are RECs legally entitled to **act as DSO**? Do you know of any practical examples in your country?	Although RECs pursuant to RED II have only been partly introduced in German legislation and although their rights have not been explicitly codified, there are a number of energy communities that own distribution grids and act as DSO. One practical example is the energy cooperative *Elektrizitätswerke Schönau.*[84]

[83] DGRV, 2021, Energy Cooperatives in Germany. State of the Sector 2021 Report; Retrieved from https://www.dgrv.de/wp-content/uploads/2021/06/20210623_ENG_DGRV_Umfrage_Energiegenossenschaften_2021.pdf

[84] https://www.ews-schoenau.de/

Do the rights of RECs refer both to electricity and heating/cooling and RES based gases?	See above
Is **collective consumption** as defined in Art. 21 REDII **within buildings/building blocks** (without using the grid) possible? Where do you see the main barriers for **jointly acting self-consumers**?	Although Germany has an effective regulatory framework for individual prosumership, **jointly acting self- consumption** has been fairly neglected so far and proper transposition of Art. 21 RED II is still pending. According to German law (EEG), the operator of the RES plants and the electricity consumer/final consumer must be identical. This strict requirement makes implementation of collective self-consumption schemes very difficult. Another barrier is that collective self-consumption does not fully enjoy the same privileges as individual self-consumption. Pursuant to RED II, also jointly acting self-consumption would have to be exempted from the EEG surcharge. In the exemplary case of a homeowners' association/condominium in a building, not only the electricity consumed in common facilities should be privileged (e.g., for the operation of the elevator and for staircase lighting), but also the electricity consumed by the members of the association in their flats would have to be exempted from the EEG surcharge. Another obstacle is the existence of numerous obligations normally required for an energy supplier and documentation duties. In 2017, the federal government introduced a **landlord-to-tenant electricity scheme** (tenant electricity scheme, German: *Mieterstrommodell*) that allows a landlord to supply the electricity from a rooftop PV installation to the tenants in the building at a lower rate than the traditional electricity provider. Some experts consider this as a variation of collective self-consumption (CSC)[85], others argue that these models do not represent cases of CSC, but rather a direct supply of tenants with electricity

[85] Toporek, M.; Campos, I., 2019, Assessment of existing EU-wide and Member State-specific regulatory and policy frameworks of RES Prosumers. PROSEU - Prosumers for the Energy Union: Mainstreaming active participation of citizens in the energy transition (Deliverable N°3.1).

	from RES plants.[86] The EEG classifies tenant electricity as electricity supply. In contrast to individual self-consumption in a single-family home, the so-called renewable energy surcharge (*EEG-Umlage*) must be fully paid. However, other fees and charges like grid charges, electricity tax and concession fee do not apply. To make tenant electricity systems more attractive economically, a separate tenant electricity bonus was introduced in 2017. The operator receives the tenant electricity bonus in addition to the revenues from the electricity sales to the tenants. This bonus was increased in 2021 with the latest amendments to the EEG. The tenant electricity bonus can be claimed if the following conditions are met: • The tenant electricity system must not exceed an installed capacity of 100 kWp. • Tenants are supplied directly; electricity does not flow through the public grid. • Electricity generation and consumption takes place in the same building or in close spatial proximity. The amendments to the EEG 2021 allow supply to consumers in the same neighbourhood. • The price of the tenant electricity must be 10% below the tariff of the local basic supplier (basic and energy price) and the minimum contract term must be limited to one year; • The tenant electricity supplier must also have to supply residual electricity in periods when the system does not entirely or does not sufficiently generate electricity. The latest amendments envisage that building owners can invest in a system themselves, but hand over the supply of electricity to a professional provider.

[86] Boos, Philipp, 2021, Rechtliche Stellungnahme Umsetzung der EU-Richtlinie zur Förderung der Eigenversorgung aus Erneuerbaren Energien und der Erneuerbare-Energie-Gemeinschaften durch das EEG 2021? (aktualisierte Fassung vom 03. August 2021). Auftraggeber: Bündnis Bürgerenergie e. V. https://www.buendnis-buergerenergie.de/fileadmin/user_upload/2021-08-03_Stellungnahme_RA_Dr_Boos__BHW__Umsetzung_EE-Richtlinie_im_EEG_2021_Version-2.pdf

	Despite payment of the tenant electricity bonus, only very few projects were implemented in the past due to the complex procedures and high transaction costs. Electricity is subject to the full renewable energy surcharge (*EEG-Umlage*) which made the scheme rather unattractive in the past.[87] Although the amendments to the EEG of 2021 brought several improvements, it is unclear whether such models will become more popular in the future. The concept **of jointly acting renewables self-consumers** as defined by the RED II **goes beyond this tenant electricity model** and covers cases where residents invest in their own RES schemes and share the benefits and risks themselves. Outlook: In its Coalition Agreement, the new federal government committed itself to simplifying tenant electricity and neighbourhood concepts (*Quartierskonzepte*) as part of a larger reform of the relevant tax, levy and surcharges system. The new EEG 2023 abolishes the EEG surcharge and covers the financing requirements for RES plants no longer via the electricity price, but via the "Energy and Climate Fund" for which the revenues from national fuel emissions trading scheme will be used. As a result, there will no longer be any levies on self-consumption and direct deliveries behind the grid interconnection point. This reduces red tape and at the same time makes tenant electricity, collective self-consumption or storage projects more attractive. With the recent amendments to the EEG, the 100 kW limit in the case of PV tenant electricity has been lifted so that larger installations can also benefit from the tenant electricity surcharge from 01.01.2023. The limit of

[87] https://www.bmwi-energiewende.de/EWD/Redaktion/EN/Newsletter/2021/01/Meldung/direkt-account.html

	6 MW now applies to any installation by “citizens’ energy companies”, as the limitation to open space PV plants has been lifted.[88] However, even if self-consumption of electricity might become more attractive from a purely economic perspective, there are still massive administrative barriers for the shared use of solar energy in multi-family buildings and neighbourhoods, including numerous obligations for energy suppliers that have to be fulfilled. In a parliamentary resolution accompanying the recent amendments of the EEG of July 2022 the federal parliament required the federal government, inter alia, to submit a proposal for an extension of the definition of self-consumption which would allow electricity consumers to purchase electricity generated on, at or in the structural facilities of the residential building or wherever suitable within their respective neighbourhoods by way of self-consumption, while at the same time preservation of the right to free choice of supplier. With regards to the tenant electricity model, the government was asked to remove hurdles that impede the generation and use of renewable energies in the in the spatial context of the building. Effective changes regarding Energy Sharing or Collective Self-Consumption are not part of the EEG 2023 but will probably be introduced later.
Are RECs legally entitled **to share, within the REC, renewable energy** that is produced by the REC (using the grid)? Is there any **definition/regulatory framework for energy sharing** already in place? How is energy sharing regulated/promoted (e.g., exemption of fees, charges etc.)?	In Germany, there does not exist any explicit regulatory framework for energy sharing. From a purely legal perspective, energy sharing is possible, but the frame conditions are highly unfavourable because an energy community in Germany cannot supply its members with its own electricity without becoming a full electricity supplier. Furthermore, all surcharges, taxes and grid fees (*Netzentgelte*) on electricity supplies

[88] https://www.cmshs-bloggt.de/rechtsthemen/sustainability/sustainability-environment-and-climate-change/das-eeg-2023-ist-verabschiedet-neuer-rahmen-fuer-erneuerbare-energien/

	apply.[89] A reduction of these costs would be needed to make energy sharing financially attractive. Next to the financial burdens, there are administrative burdens as RECs will automatically become electricity supplier. This implies that they have to fulfil several obligations pursuant to the Federal Energy Industry Act (*EnWG, Energiewirtschaftsgesetz*), Market Data Register Ordinance (*MaStRV, Marktstammdatenregisterverordnung*), Electricity Tax Implementation Ordinance (*StromStV, Stromsteuer-Durchführungsverordnung*) and other regulations. This includes reporting and notification, accounting, invoicing and publication obligations which increase the transaction costs considerably.[90,91] The recent amendments to the EEG of July 2022 did not provide any explicit provisions or relief for energy sharing. The Federal government argued that it first aims to fundamentally overhaul the electricity market design including the complex system of surcharges, fees, taxes and then as a further step deal with the regulatory framework (see also the discussions during the Thematic workshop held on 31 March 2022 in the frame of the German country desk.[92] In a parliamentary resolution accompanying the recent amendments of the EEG (July 2022), the federal

[89] Dröschel B. et al. (2021): Stand der Umsetzung der RED II-Richtlinie in Deutschland mit Blick auf die Bürgerenergie. Kurzstudie [Status of the implementation of the RED II Directive in Germany with regard to citizen owned energy. Brief study]. Published by Bündnis Bürgerenergie (BEEn) and Bund für Umwelt und Naturschutz Deutschland e.V. (BUND). Institut für ZukunftsEnergie- und Stoffstromsysteme (IZES gGmbH). Retrieved from https://www.buendnis-buergerenergie.de/fileadmin/user_upload/downloads/Studien/20210728_IZES_Kurzstudie_BBEn_RED_II_final.pdf, accessed on 8 December 2021.

[90] IZES gGmbH, 2021, Kurzstudie Stand der Umsetzung der RED II-Richtlinie in Deutschland mit Blick auf die Bürgerenergie Laufzeit: April 2021 – Juli 2021. Saarbrücken und Berlin, den 28.07.2021. Auftraggebende: Bündnis Bürgerenergie, Bund für Umwelt und Naturschutz Deutschland e.V., Available from https://www.buendnis-buergerenergie.de/fileadmin/user_upload/downloads/Studien/20210728_IZES_Kurzstudie_BBEn_RED_II_final.pdf

[91] Schwarz, L., Di Nucci, MR.; Krug, M., 2022, Finanzierung als Bürde für die Umsetzung von Erneuerbare-Energie-Gemeinschaften – Status Quo und Handlungsbedarf für die Energiepolitik, Energiewirtschaftliche Tagesfragen, 72. Jg. 2022 Heft 4, 30-35.

[92] Krug, M.; Gatta, V.; Di Nucci, M.R., Michalke, H., 2022a, 2. Thematischer Workshop des Ländertisches in Deutschland. 31.03.2022. Dokumentation; Retrieved from https://come-res.eu/resource?uid=1305

	parliament emphasized: "…*Energy-sharing projects can and should make an important contribution to achieving the targets for the expansion of renewable energies and sector coupling. With the abolition of the EEG levy, the new EEG provides a crucial simplification. Nevertheless, the implementation of energy sharing remains complex. On the one hand, this is due to unresolved definitional questions regarding the design of energy sharing. On the other hand, an even more attractive framework for energy sharing projects, a reform of the grid fees is necessary."* In the resolution, the parliament asked the federal government, inter alia, to examine where unnecessary obstacles to energy sharing exist and to submit proposals for their elimination; in this context, proposals should be made, particularly in the course of the subsequent relevant legislative amendments, which consider the diverse areas of application of energy sharing both in terms of definition and in an application-friendly manner. Since European law provides for the use of jointly generated energy, there is still a blank space here.[93]The Alliance for Citizens' Energy (*Bündnis Bürgerenergie*) presented a proposal how energy sharing might be implemented in practice. This includes the following elements: 1. Creation of a new type of electricity sale "Energy Sharing" which allows RECs to supply electricity to their members. For the electricity fed into the grid, the REC, as the plant owner and operator, is entitled to receive a market premium. 2. Electricity from wind and solar farms owned by a REC that is supplied to members in the same district and in the neighbouring district within a radius of 25 kilometres from the plants is exempt from electricity tax, CHP levy and several other levies.

[93] https://www.buendnis-buergerenergie.de/aktuelles/news/artikel/2022-7-7/fortschritte-und-vertane-chancen-im-eeg-2023

	3. For electricity that is used during periods of regional RE production, REC members pay reduced grid fees and reduced concession fees. 4. The share of electricity consumed via Energy Sharing is determined by overlaying the generation profile of the participating plants with the load profiles of the participating members (standard load profiles or quarter-hourly load profiles from smart meters). For this the energy data of the plants of the REC and the members are aggregated and compared with the and reconciled with the grid operators. 5. To implement the electricity supply, the REC either becomes an electricity supply company itself or transfers the energy management processes and duties including balancing group management, supply switching and billing to a service provider.[94] A recent study[95] commissioned by Bündnis Bürgerenergie and carried out by IÖW concluded that energy sharing has an enormous potential across Germany. Over 90% of all households could be supplied with electricity from Energy Sharing plants (such as PV rooftop installations). IÖW postulates that private investments of about 6.5-12.8 billion EUR can be made, corresponding to 100-200 EUR per member.
How is energy sharing regulated/promoted (e.g., exemption of fees, charges etc.)?	So far, there is no regulatory framework explicitly promoting energy sharing.
Which **institutional body** is responsible for registering RECs/CECs? Briefly explain.	So far, citizens' energy companies did benefit from certain privileges under the auction system for onshore wind turbines. When submitting their bids

[94] Bündnis Bürgerenergie, 2021, Konzeptpapier Energy Sharing: Partizipation vor Ort stärken & Flexibilität aktivieren; Retrieved from https://www.buendnis-buergerenergie.de/fileadmin/user_upload/BBEn_Konzeptpapier_Energy_Sharing_Stand_vom_07.10.21.pdf

[95] Wiesenthal et al. [IÖW], 2022, Energy Sharing: Eine Potenzialanalyse. Gemeinschaftlich Strom im Verteilnetz erzeugen und nutzen: Eine Studie zum Umsetzungsvorschlag im Rahmen von Artikel 22 der Erneuerbare-Energien-Richtlinie der EU. Gutachten im Auftrag des Bündnisses für Bürgerenergie e.V.; https://www.buendnis-buergerenergie.de/fileadmin/user_upload/downloads/Studien/Energy_Sharing_Eine_Potenzialanalyse_02052022.pdf

	to the Federal Network Agency (*Bundesnetzagentur*), citizens' energy companies had to submit a self-declaration covering a broad number of issues. For instance, the company had to declare that no contracts were concluded prior to the submission of the bid that would provide for the transfer of shares within the company which would change the company structure in such a way that the company would no longer qualify as a citizens' energy company. Subsequent to an award, the Federal Network Agency has the right to demand evidence. This may include, for example, a list of members, corresponding certificates of registration of the members, or the partnership agreement. The Federal Network Agency does not carry out any checks prior to the submission of bids ensuring that a company actually fulfils the criteria of a citizens' energy company. The agency also records all tenant electricity projects, so that in the future registration of RECs by the Federal Network Agency seems evident. The recently adopted amendments to the EEG of July 2022 envisage that citizens' energy companies that comply with the revised eligibility criteria shall be exempted from the obligation to participate in auctions. The Federal Network Agency shall report to the Federal government by 31 December 2024 and then annually on the experience to safeguard citizen energy and citizen participation.
How many RECs (pursuant to RED II) have been officially registered in your country?	In 2016, approximately 1,700 community energy initiatives existed, with cooperatives representing slightly more than 50%.[96] It is difficult to assess how many of these would fulfil the criteria of a REC as defined in the RED II. Germany has a long tradition of energy cooperatives and municipal (multi-)utility companies (*Stadtwerke*). Many energy cooperatives can be expected to largely fulfil the criteria of RED II. Modern energy cooperatives experienced a particularly dynamic development between 2006 and 2013.

[96] Kahla, F.; Holstenkamp, L.; Müller, J.R.; Degenhart, H., 2017, Entwicklung und Stand von Bürgerenergiegesellschaften und Energiegenossenschaften in Deutschland.

	By the end of 2020, the cumulative number of energy co-operatives in Germany founded since 2006 reached 896, involving 200,000 members and comprising investments in renewable energies of around 3.2 billion EUR.[97] There is no official information how many citizens' energy companies formally comply with the definition of the EEG.
How many CECS (pursuant to IEMD) have been officially registered in your country? (estimate)	CECs as defined in the IEMD have not been explicitly introduced into German legislation yet. Both the previous and the new federal government refrained from introducing a separate legal definition. It is difficult to judge how many of the roughly 1,700 energy communities would implicitly fulfil the criteria of a CEC.

2. Assessment of enabling frameworks

Which are the **key policy actors and public authorities responsible** for developing an enabling framework for RECs in your country? (e.g., national/regional ministries, national/regional public authorities, public/state agencies?)	The Federal Ministry for Economic Affairs and Climate Action (*Bundesministerium für Wirtschaft und Klimaschutz, BMWK*) is the key policy actor with responsibility for the coordination of the energy transition (*Energiewende*). Other important policy and administrative actors on the federal level are the Federal Ministry of Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV), the Federal Network Agency (*Bundesnetzagentur*), the German Energy Agency (*dena*) and the Federal Environment Protection Agency (*Umweltbundesamt*). At the regional state level (*Länder*), the regional ministries, other public authorities and actors like regional or local energy agencies deserve mentioning. Finally, urban and rural districts as well as municipalities may act as facilitators and promoters of community energy.

[97] DGRV (2021).

Which are other key **actors** (non-public) promoting the development of RECs? (e.g., community energy associations, etc.)	There are several associations, initiatives and networks which promote CE initiatives, including the German Renewable Energy Association (*Bundesverband Erneuerbare Energien*) and the German Wind Energy Association (*Bundesverband Windenergie e.V.*) with its Advisory Council for Citizen Energy (*Bürgerwindbeirat*). Further supporting associations include the Alliance for Citizen Energy (*Bündnis Bürgerenergie e.V.*), the National Office for Energy Cooperatives in the German Cooperative and Raiffeisen Confederation (*Bundesgeschäftsstelle Energiegenossenschaften im Deutschen Genossenschafts- und Raiffeisenverband e.V.*), the Network Energy Transition Now (*Netzwerk Energiewende Jetzt* e.V.) and the Renewable Energies Agency (*Agentur für Erneuerbare Energien*). There are also private companies and SMEs specialising in the development of community energy projects. In the COME RES target region Thuringia, the following organisations can also be regarded as supporters of community energy: *Deutsche Kreditbank AG Erfurt*, *Ethikbank Eisenberg*, Naturstrom AG, Klimaschutzstiftung Jena-Thüringen, and *Nachhaltigkeitszentrum Thüringen*. *Bürgerwerke eG* is a green electricity provider and an umbrella organisation of community energy companies bundling green electricity from local generation to supply households and enterprises throughout Germany.
What have been **key driving forces** and **enablers of community energy** in your country so far? (before RED II was adopted)?	in Germany, a supportive legal and regulatory framework played a fundamental role for the development of community energy, especially for cooperatives, which between 2006 and 2013 experienced a particularly dynamic development. A crucial factor which facilitated the emergence of community energy have been attractive, long-term oriented feed-in tariffs/premiums which helped to create a low-risk investment

	environment.[98,99,100] The price-based support scheme has been complemented by a purchase guarantee and priority feed-in of renewable electricity into the grid, offering a high degree of planning security and a reduction of transaction costs for investors. Further, it worked as a shelter for new small-scale and locally rooted renewable electricity producers in particular to grow in a niche market.[101] Amendments to the Cooperative Law in 2006 - which simplified the rules and requirements to found energy cooperatives and the availability of low interest loans offered by regional public banks - helped to facilitate the diffusion of energy communities.[102] Regional and local policies in several federal states have also supported the development of citizen wind farms through advice, guidance, capacity building, institutional innovations, networking and financial support.[103]
Has the national or regional government(s) carried out any **assessment of the existing barriers and potential of development** of REC? (Art.22,3 REDII)? What are the **main findings and recommendations?** To what extent have these been considered by the government?	The authors are not aware of any assessment of the existing barriers and potential of development of RECs carried out by the federal government or any of the state governments (Länder). However, such an assessment could serve as a well-grounded basis for the creation of an effective enabling framework.[104]

[98] Dóci, G.; Gotchev, B., 2016, When Energy Policy Meets Community: Rethinking Risk Perceptions of Renewable Energy in Germany and the Netherlands. Energy Res. Soc. Sci., 22, 26–35, doi:10.1016/j.erss.2016.08.019.

[99] Nolden, C., 2013, Governing Community Energy—Feed-in Tariffs and the Development of Community Wind Energy Schemes in the United Kingdom and Germany. Energy Policy, 63, 543–552, doi:10.1016/j.enpol.2013.08.050.

[100] Krug, M.; Di Nucci, M., 2020, Citizens at the Heart of the Energy Transition in Europe? Opportunities and Challenges for Community Wind Farms in Six European Countries. Renew. Energy Law Policy Rev., 9, 9–27.

[101] Beermann, J.; Tews, K., 2017, Decentralised Laboratories in the German Energy Transition. Why Local Renewable Energy Initiatives Must Reinvent Themselves. J. Clean. Prod., 169, 125–134, doi:10.1016/j.jclepro.2016.08.130.

[102] Nolden (2013).

[103] Krug and Di Nucci (2020).

[104] Roberts J., 2020, Power to the people? Implications of the Clean Energy Package for the role of community ownership in Europe's energy transition. RECIEL 29(2):232–44. https://doi.org/10.1111/reel.12346.

Do competent authorities at national, regional and local level include **provisions** for the **integration and deployment of renewable energy**, including for **RECs** in the field of **spatial planning**? Do competent authorities at national, regional and local level include **provisions** for the **integration and deployment of renewable energy**, including for **RECs** when designing, building and renovating **urban infrastructure**, industrial, commercial or residential areas and energy infrastructure? (Art.15,3 REDII)	Several federal states have recently introduced obligations to install solar systems in newly constructed and renovated buildings (e.g., Baden-Württemberg, Berlin, Hamburg, Schleswig-Holstein). Other states plan to follow (Rhineland-Palatinate, Bremen). However, these obligations do not specifically address RECs. Already 10 years ago, the rural district of Steinfurt in the federal state of North Rhine-Westphalia took several innovative and pro-active measures in the field of spatial planning/designation of suitable wind energy zones. They set up a **wind energy master plan** with potential wind energy zones. Furthermore, a **working group** involving mayors, farmers, associations, municipal energy utilities and other stakeholders was founded which developed **Guidelines for Citizens' Wind Farms** (Bürgerwindpark-Leitlinien[105]) to guide and increase the participation of local residents and stakeholders in the financing and planning of wind farms. These guidelines contain certain minimum criteria developers must fulfil, ensuring procedural and financial participation of citizens. The district administration provided complementary support including the foundation of a **local service centre** for wind energy providing advisory services to municipalities, citizens, landowners and other stakeholders, serving as a contact point. This centre provides advisory and technical assistance services for landowners, citizens, municipalities and project developers and serves as a key contact, networking and consultation point.[106] Affected farmers and landowners were pro-actively contacted and informed about potential wind energy sites and the possibilities to develop community wind

[105] https://www.kreis-steinfurt.de/kv_steinfurt/Kreisverwaltung/%C3%84mter/Amt%20f%C3%BCr%20Klimaschutz%20und%20Nachhaltigkeit/energieland2050%20e.%20V./Themen%20und%20Projekte/Masterplan%20Wind/B%C3%BCrgerwindpark%20Leitlinien%20Kreis%20Steinfurt_ANSICHT.pdf

[106] Kudreņickis, I.; Themann,D.; Krug, M., 2020, Principles and Criteria for Fair and Acceptable Wind Energy; Retrieved from https://winwind-project.eu/fileadmin/user_upload/Resources/Deliverables/Del_6.3_Principle_and_Criteria.pdf

	farms instead of signing land lease contracts with external developers. The service centre served as a model for similar service centres which were later established in Thuringia and Saxony. The **Thuringian Integrated Energy and Climate Strategy** of 2019 included a provision that awarding state-owned land for RES projects in a tender process should be designed in such a way that Thuringian citizens and institutions are given priority.
In which areas do you identify key r**egulatory and administrative barriers** for RECs? Have national/regional governments recognized and addressed these barriers as well? Have they undertaken measures to remove those barriers (Art.22,4 RED II)?	Administrative bottlenecks in planning and authorisation process still represent serious barriers for the mainstreaming of CE in general and RECs in particular. Procedures differ from federal state to federal state. The results of an online survey among the country desk participants conducted in the frame of the second thematic workshop of the German country desk on 31 March 2022 illustrated that the removal of unjustified legal and administrative barriers in 2022 had top priority.[107] Barriers to community wind farms include: • Obligation for community wind energy projects to participate in the auctions for remuneration. • Lack of sufficient feasible areas/properties for the developments of wind power • Time-consuming and complex designation of wind energy zones in regional plans and/or municipal land use plans • Lengthy and complex project approval procedures • Increasingly complex nature protection rules and significant variations between the different federal states • Requirement for certain citizen energy companies to publish a prospectus according to the Capital Investment Act

[107] Krug et al. (2022a).

	Barriers to community PV include: • The "breathing cap" for the expansion of plants up to 750 kW and the associated degression of feed-in tariffs has led to self-consumption being much more economically attractive than feed-in models. Today, pure grid feed-in is not feasible for new systems and for many small rooftop systems. As a result, often the available roof area is not fully used for the installation (in order to increase the self-consumption quota with a smaller system). Secondly, systems with little or no self-consumption are not realised because the economic efficiency is too low. • High administrative burden for landlord-tenant models • Unequal treatment of direct supply in the tenant electricity model and self-consumption. • With the amendments to the EEG of 2021, operators of rooftop PV systems between 300 kW and 750 kW must decide whether to have 50% of their electricity generation remunerated on the basis of the fixed value to be applied from the market premium model or to participate in a tender to have the entire electricity generation remunerated on the basis of the award. The new procedure leads to financial uncertainties and possibly financial losses in this market segment; a noticeable decline in investments is expected. <u>Outlook:</u> The new Federal government is highly committed to reduce administrative barriers and accelerate planning and permitting procedures. The recent amendments to the EEG of July 2022 envisage that wind and open space solar projects by citizens' energy companies will be – under certain conditions - exempted from the auctions and can thus be implemented more easily. In order to streamline and accelerate procedures, the government established the principle that the construction and operation

	of RES plants and associated ancillary facilities are in the overriding public interest and serve public safety. Until electricity generation in Germany is virtually GHG neutral, renewable energies are to be included as a priority concern in the respective protected interests to be weighed up. This means that in the future many balancing processes where different public interests have to be weighed against each other in the context of approval procedures or court proceedings, would now be decided in favour of renewable energies. Further provisions include the simplification and digitalisation of the grid connection procedure for small RE installations. In addition to the EEG, the Wind Energy on Land Act was adopted. This law obliges the federal states to designate on average 2% of their land area for wind power and to speed up the approval procedures. Furthermore, an amended version of the Federal Nature Conservation Act was passed. Nature protection regulations in the field of wind energy are going to be standardised and project permitting will be accelerated. All these developments aim to remove administrative barriers and reduce red tape.
Are RECs subject to **fair, proportionate and transparent procedures,** including **registration and licensing procedures?** (Art.22,4 RED II) Where do you see shortcomings? Are there any procedures tailored specifically for RECs?	Usually, the same procedures apply for all projects independent of their ownership. For a certain period of time, citizens‘ energy companies were allowed to bid in the auctions for wind energy without having a building permit (for which it could be applied for at a later stage). This rule has been abolished. In recent years, planning and permitting procedures have become increasingly complex. Project developers, including community energy project developers, have to submit a high number of documents and expert appraisals.
To what extent do the responsible authorities take measures providing that the **relevant DSOs cooperate**	So far, no specific mechanisms, provisions or incentives have been developed to ensure cooperation of relevant Distribution System Operators

with RECs to facilitate energy transfers within RECs? (Art.22,4 RED II) Please, describe the scope of respective regulations.	(DSO) with RECs in order to facilitate energy transfers within RECs. Only in few cases, energy communities own and operate distribution grids themselves (e.g., Schönau), a constellation that would likely facilitate energy transfers within RECs.
Do RECs benefit from any preferential network charges or any other preferential treatment with regard to network charges/tariffs etc.?	No. The Alliance for Citizens Energy (*Bündnis Bürgerenergie)* has published a proposal for energy sharing according to which electricity from wind and solar farms owned by a REC is supplied to members in the same district and in the neighbouring district within a radius of 25 kilometres from the plants should be exempted from electricity tax, CHP levy and several other levies (see above).
Have the national competent authorities developed a **transparent cost-benefit analysis** of distributed energy sources? Do, in your view, the relevant fees, **charges, levies and taxes** ensure that RECs contribute in an **adequate, fair and balanced way** to the **overall cost sharing** of the system taking into account the costs and benefits RECs can provide to the energy system (Art.22,4 RED II)	The authors are not aware of any cost-benefit analysis of this type that would ensure an adequate, fair, and balanced contribution of RECs to the overall cost-sharing.
Are RECs subject to any **discriminatory treatment** with regard to their **activities, rights and obligations** as final customers, producers, suppliers, DSOs, or as other market participants? (Art.22,4 RED II)	The authors are not aware of any discriminatory treatment of this kind. However, one might argue that the current rules and procedures do not adequately consider the structural disadvantages RECs face compared to professional market actors (e.g., high share of voluntarism, high transaction costs for decision-making, lower economies of scale, lower risk shifting opportunities). Further, it might be argued that collective self-consumption schemes face discriminatory treatment compared to individual self-consumption (see above).
Is the participation in the RECs **accessible to all consumers**, including **low-income or vulnerable**	Participation in a REC or comparable organisation is usually open to all consumers, including low-income or vulnerable households. Many energy

households? (Art.22,4 RED II) Are there any **specific policy measures** to facilitate the participation of low-income and vulnerable groups?	cooperatives and community energy initiatives offer low minimum fees/deposits. However, even minimum fees/deposits of 100-500 EUR could be too high for low-income and vulnerable households. There are also practical problems and partly conflicts with social welfare regulations. Often, there is also low interest among these groups and lack of trust towards such initiatives. Possible solutions to involve low-income households and vulnerable groups have been briefly discussed during the 2nd Thematic Workshop organized in the frame of the German country desk on 31 March 2022.[108] The authors have no information about any specific policy measures facilitating the participation of low-income and vulnerable groups. These households sometimes can benefit indirectly from the trade tax revenues paid by the plant operators to the municipalities, and directly from in-kind benefits, donations or the disbursements of parts of the revenues through local foundations, associations etc.
Are there any policy measures/tools available or planned **to facilitate access of RECs to finance**? (Art.22,4 RED II) (e.g., investment support, start-up financing, risk capital). Please, also consider cohesion funds and ESIF, national resilience and recovery fund. Please briefly describe.	Generally, financial support for RES projects is attainable in various forms, including operational support via market feed-in tariffs and premiums under the EEG. In the heating/cooling sector, the Market Incentive Program (*Marktanreizprogramm*, MAP) plays an important role. Further instruments include low-interest loans or grants. There are several promotional banks and financing institutions like *Kreditanstalt für Wiederaufbau* (KfW) and the Development Agency for Agribusiness and Rural Areas (*Landwirtschaftliche Rentenbank*) that provide low interest loans for community energy initiatives. Several federal state governments including those of Schleswig-Holstein and Thuringia provide start up financing via state owned promotional banks or via dedicated community energy funds. Several organisations like BMWK through the European Climate Initiative (EUKI), dena, *Gesellschaft für Internationale Zusammenarbeit* (GIZ), or

[108] Krug et al. (2022a).

	Deutsche Bundesstiftung Umwelt (DBU) financially support community energy projects on an international level. Outlook: The new federal government decided to set up a support programme for community wind farms at the national level following the example of the state government of Schleswig-Holstein. Funding would be provided for the costs of the planning and approval phase of onshore wind turbines. Eligible measures include all measures in the preliminary planning of a project (such as feasibility studies, site analyses, profitability calculations) as well as other necessary expert opinions that contribute to the realisation of the wind turbines. Up to 70% of the costs for the planning and approval of wind energy projects can be subsidised, up to a maximum of 200,000 EUR. The programme is scheduled to start in the 3rd quarter of 2022.[109] In a parliamentary resolution accompanying the recent amendments of the EEG of July 2022, the federal parliament asked the federal government, inter alia, to adjust the support programme for citizens' energy companies in line with the increase in the maximum value from 1 MW to 6 MW for open space PV plants.
Are there any measures/tools available/planned **to facilitate access to information**? Is there any **legal/technical support** or **institutional support**? Please briefly describe.	There are various forms of information available online like guidelines, guidebooks, brochures etc. prepared by associations, energy agencies and other supporting structures. Therefore, lack of information does not seem to be a crucial bottleneck for energy communities in Germany. This was also illustrated by the results of an online survey conducted during the 2nd Thematic Workshop organised within the German country desk on 31 March 2022[110] (Krug et al. 2022a). However, the stakeholder dialogues in

[109] Bundesministerium für Wirtschaft und Klimaschutz, 2022, Förderprogramm „Bürgerenergiegesellschaften“ bei Windenergie an Land. Eckpunkte der Förderrichtlinie. April 2022; Retrieved from https://www.bmwk.de/Redaktion/DE/Downloads/F/forderprogramm-burgerenergiegesellschaften-bei-windenergie-an-land.pdf?__blob=publicationFile&v=4

[110] Krug et al. (2022a).

	the frame of the German country desk show that municipalities, particularly rural and smaller ones, need more information about the possibilities and benefits of supporting energy communities.
Is regulatory and capacity-building support provided **to public authorities** to enable and set up RECs, or to participate directly in RECs? (Art.22,4 RED II)	The authors are not aware of any specific regulatory and capacity-building support provided by the national government to public authorities to enable or setup RECs or to participate directly in RECs. However, several federal state governments offer advice, guidance, capacity building, networking and financial support (e.g., through regional energy agencies, see for instance the Platform Community Energy & Energy Cooperatives in North Rhine-Westphalia).
Are there any rules in place to secure the **equal and non-discriminatory treatment of consumers** that participate in the REC?	Yes, equal and non-discriminatory treatment of consumers is safeguarded.
Are there any **national or regional objectives or targets for RECs** and **community energy** in general? (quantitative and/or qualitative)	There is no explicit quantitative target referring to RECs. So far, the Renewable Energy Sources Act (EEG) ruled in §2(3) that "the diversity of actors in electricity generation from RES should be preserved under the auction scheme". With the recent amendments to the EEG of July 2022, however, this target formulation was removed. The amendments to the EEG generally provide for higher expansion targets and auction volumes for wind and PV to reach the new goal of 80 % renewable energy in the electricity mix by 2030 (compared to 49% in the first half of 2022). The installed solar capacity is to increase from currently just under 62 to 215 gigawatts (GW) by 2030, thus more than doubling the previous target value. By 2040, 400 GW are to be reached. For onshore wind energy (currently just under 57 GW), the 2030 target rises from 71 to 115 gigawatts, and 160 GW are set for 2040. In 2016, the federal state of Mecklenburg-Western Pomerania adopted the Citizen and Community Participation Act which requires wind farm

	operators to make 20% of company shares available for purchase by residents and communities in the vicinity of the wind park. The Federal Constitutional Court recently ruled that the law is compatible with Germany's Constitution (*Grundgesetz*). Few state governments endorsed qualitative targets referring to community energy in their energy strategies. <u>Outlook:</u> In a parliamentary resolution accompanying the recent EEG amendments, the federal parliament invited the federal government, inter alia, "to examine to what extent the decision of the Federal Constitutional Court community participation in wind farms in Mecklenburg-Western Pomerania opens up the scope of action for the federal level and based on this assessment to develop proposals for more extensive municipal and citizen participation together with the municipal umbrella organisations and the renewable energy sector."
Are there any **dedicated support schemes for RECs/community energy** in general providing **operational support**?	The EEG provides operational support for renewable energy projects. Under the auction system, citizens' energy companies in the field of wind energy did so far benefit from a preferential pricing rule (uniform pricing) which means that the market premium for citizens' energy companies that were successfully bidding equals the highest successful bid of the same auction round. From 1 January 2023, citizens' energy companies in the field of wind (≤18 MW) and PV (≤6 MW) will be exempted from the obligation to participate in auctions.[111]

[111] https://www.bmwk.de/Redaktion/DE/Downloads/Energie/0406_ueberblickspapier_osterpaket.pdf?__blob=publicationFile&amp%3Bv=14

3. Assessment of RES support scheme[112] designs

What are the **key existing support schemes for renewable energy** in the field of electricity? (e.g., investment support via cohesion funds and ESIF, resilience and recovery funds; operational support via feed in premiums, competitive bidding/auctions etc.) Are there any modifications to existing support schemes/new support schemes planned in the future?	The Renewable Energy Sources Act (EEG) came into force in 2000 with the aim to encourage renewable electricity generation through feed-in tariffs (FIT), later feed in premiums (FIP) and market premiums. The law has been amended numerous times. In 2017, the price-based support scheme based o FITs/FIPs was replaced by auctions and competitive bidding for most renewable technologies. So far, auctions were mandatory for offshore wind, onshore wind and PV systems >750 kW as well as biogas (>150 kW) plants. Such projects had to compete in auctions, where only the lowest offers were awarded a contract. Only smaller RES installations did benefit from legally fixed remuneration rates. Operators of RES plants including RECs sell electricity to a direct marketing company which then re-sells the electricity to the **power exchange**. Additionally, the operators receive a **market premium** from the DSO determined by competitive bidding under the auction scheme. The auction design encompasses a “price only" selection process, i.e. the only award criterion being the necessary support level for the electricity. <u>Outlook:</u> The recent amendments to the EEG of July 2022 introduce various changes. Expansion targets and auction volumes for wind and PV have been considerably increased. The capacity threshold - for which participation in auctions is mandatory - has been raised to 1 MW. Remunerations for PV and wind energy have been increased. From 1

[112] In accordance with Art.2 of RED II **support scheme** means 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.

	January 2023, citizens' energy companies in the field of wind power (≤18 MW) and PV (≤6 MW) will be exempted from the obligation to participate in auctions. There are several other improvements, e.g. for ground-mounted PV installations (e.g., the "eligible" areas next to motorways and railways will be increased from 200 to 500 m). The amendments also stipulate that the further expansion of renewable energies after the completion of the coal phase-out should be "market-driven". This means that from 2038 (and ideally from 2030), EEG support for renewables will be phased out.
To what extent do national and regional governments **take into account the specificities of RECs** when designing support schemes for RES-E? (e.g., special rules, preferential treatment)	Germany was one of the first countries to consider the specificities of community energy organisations in its main renewable energy support scheme in order to preserve 'actor diversity' under the auction scheme and to compensate for structural disadvantages these entities face compared to commercial project developers and institutional investors. Hence, citizens' energy companies did and partly still do benefit from several privileges. So far, these privileges applied exclusively to the area of wind energy. Parts of those privileges had been abolished due to cases of misuse, two important privileges remained. These include a preferential pricing rule (uniform pricing instead of the standard pay as bid rule) and lower security deposits. These privileges, however, turned out insufficient to compensate for the structural disadvantages that energy communities are facing in the auctions compared to professional developers, energy utilities and institutional investors. Outlook: In contrast to the previous federal government, the current government decided to make use of the new De minimis rules offered by the new Climate, Energy and Environmental State Aid Guidelines. The recent amendments to the EEG exempt – under certain conditions - open space and rooftop community PV projects ≤6 MW and community wind energy

	projects ≤18 MW from the auctions. In the future, PV projects of citizens' energy companies will receive a remuneration equalling the average of the highest bid values still awarded in the respective tenders for open space PV or rooftop PV of the previous year. For wind projects, the remuneration for citizens' energy companies will be based on the average of the highest bids still awarded for each bid date in the year before the last year. Furthermore, the government decided to set up a support programme "Citizens' energy companies" for onshore wind at the national level.[113]
If **auctions** represent the key support scheme for RES-E in your country: have any of the following measures been implemented or are such measures planned? Please briefly describe.	
*Exemptions for RECs from taking part in auctions/ Use of the **de minimis rule**[114]*	The previous government refrained from making use of the de minimis rules offered by European law. In contrast, the new federal government plans to make use of the new rules and exempt ground-mounted and rooftop PV ≤6 MW and wind energy systems ≤18 MW owned by RECs from the auctions.
*Special **bidding windows/categories** for RECs within the auction system (e.g., like in Ireland)*	No
*Special REC related **pre-qualification criteria** all bidders have to fulfil in order to take part in the auctions (e.g., minimum number of shares offered to RECs/local*	No

[113] Krug et al. (2022a).

[114] The new **Climate, Energy and Environmental State Aid Guidelines (CEEAG) (https://ec.europa.eu/competition-policy/sectors/energy-and-environment/legislation_en)** provide additional flexibility for RECs, allowing Member States to exempt REC projects and SME-owned projects below 6 Megawatts (MW) of installed capacity from the competitive bidding requirement. RECs and small and micro enterprises may also develop wind projects up to 18 MW without competitive bidding. More generally, where competitive bidding does apply, the CEEAG enable Member States to design tenders in a way which enhances the participation of energy communities, for example by lowering pre-qualification requirements.

communities, existence of a community engagement plan)	
***Multi-criteria assessment** for selection of successful bids (i.e., selection not only based on the offered price/remuneration level, but also on social criteria, e.g., community co-ownership etc.)*	No
*Special **pricing rules** for RECs (e.g., uniform pricing in Germany, bonus payments in France)*	Yes, under the auction scheme citizens' energy companies in the field of wind energy benefit from beneficial pricing rules (uniform pricing rule instead of the 'pay as bid' rule which is the standard rule). Outlook: The new federal government decided to make use of the European de minimis rules and exempt – under certain conditions – open space and rooftop PV ≤6 MW and wind energy systems ≤18 MW of installed capacity owned by citizens' energy companies from the auctions.
Others	No
Are the existing/proposed measures under section 3 sufficient to effectively facilitate the development of RECs? What should be improved?	Although Germany has achieved a comparatively high level of community energy (CE), in recent years the development of CE has been stagnating. With the transition to auctions for large PV, wind and biogas and the phase-out of feed-in tariffs the number of newly established energy cooperatives has significantly decreased. [115] The phase-out of feed-in tariffs/premiums and the transition to auctions in 2017 favoured larger actors. The share of successful bids from citizens' energy companies in the context of wind energy auctions decreased from 13.9% in 2018 to 4.3% in 2020.[116] CE

[115] DGRV (2021).

[116] FA Wind, 2021, EEG 2021: Ausschreibungsspezifische Regelungen für Windenergieanlagen an Land, Berlin; Retrieved from https://www.fachagentur-windenergie.de/fileadmin/files/Veroeffentlichungen/EEG/FA_Wind_EEG-2021_Ausschreibungen_6Aufl_2021.pdf.

	initiatives have been increasingly “kept in quarantine”.[117] On top of that, there have been policy design failures in the context of auctions that led to misuse of citizens energy companies by commercial developers. Although in the area of wind energy, projects of citizens’ energy companies enjoy certain privileges under the auction system (uniform pricing, lower security deposits), these turned out to be insufficient to compensate for the structural disadvantages that energy communities are facing compared to other market actors.[118] <u>Outlook:</u> The new federal government developed several promising policy measures which provide new opportunities for CE. It considerably raised the national RES targets and decided to make use of the European de minimis rules and exempt ground-mounted and rooftop PV projects ≤ 6MW and wind energy systems ≤18 MW owned by citizens’ energy companies from the auctions. It provides better remuneration for RES based electricity fed into the grid, it started to remove administrative barriers for RECs, collective self-consumption and tenant electricity. It also decided to provide start-up-financing for community wind farms through a dedicated support scheme (see above). This needs to be further complemented by enabling energy sharing, the removal of the manifold administrative barriers and provision of targeted advise for community initiatives, citizens and municipalities.

[117] https://www.energiezukunft.eu/meinung/die-meinung/buergerenergie-wird-verschaerft-in-quarantaene-gehalten/

[118] Krug, M.; Di Nucci, M., Caldera, M.; De Luca, E., 2022b, 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

Which other accompanying support measures specifically targeting RECs do exist in your country (in addition to those mentioned above in sections 2 and 3; e.g., R&D programmes, regulatory sandboxes, others)?	Besides market premiums there are low interest loans by KfW or the Development Agency for Agribusiness and Rural Areas (*Landwirtschaftliche Rentenbank*) for RES installations including community energy projects. Several federal states developed (or are just developing) complementary support schemes targeting community energy initiatives and providing start-up financing. In 2018, the state government of Schleswig-Holstein, the COME RES model region, set up a **citizen energy fund** (*Bürgerenergiefonds*), a revolving fund which provides risk capital for citizen/community energy projects to pre-finance their upfront costs.[119] The fund is administered by the Investment Bank of Schleswig-Holstein, the 100% state owned development bank of Schleswig-Holstein. It started operation in 2018 and is the first of its kind in Germany. The fund serves to finance preparatory measures for citizen energy projects in the sectors of renewable heat, new mobility, renewable power generation, energy efficiency and digitalization. Inspired by the example of Schleswig-Holstein, the state government of Thuringia has recently set up a similar fund and even the federal government has recently decided to set up a similar scheme for community energy initiatives in the field of wind energy. As already mentioned above, several federal state governments offer advice, guidance, capacity building, networking and financial support (e.g., through regional energy agencies, see for instance the case of North Rhine-Westphalia with its former Platform Community Energy & Energy Cooperatives). The federal state government of Baden-Wurttemberg supports coaching and advisory services for energy cooperatives in the frame of the project "Citizens Full of Energy" in cooperation with the regional association of cooperatives and the regional association of citizens' energy cooperatives. Both federal government and regional state

[119] More information can be found at https://www.ib-sh.de/produkt/buergerenergiefonds/

	governments provide financial support for relevant R&D activities including regulatory sandboxes, living labs, etc. One example is the “Smart Energy Showcases – Digital Agenda for the Energy Transition (SINTEG)” funding programme which offers a regulatory sandbox for the smart energy supply of the future. A key goal within the SINTEG programme is to obtain practical experience and to use this to enhance the regulatory framework. Participants of the SINTEG programme can test new technologies, procedures and business models – for example in the areas of digitalisation and the coupling of the electricity and heat sectors – and compensates them for the economic disadvantages that result out of these activities. The new federal government committed to examine the possibilities of establishing a community energy fund at national level for mitigating the risks for community energy initiatives.

4. Novel and promising policy measures

Do you know of any **novel or promising policy measures** on a national/regional/local level **in your country** which may serve as a model for other countries/regions/municipalities in order to facilitate the development of RECs? If possible, provide a short description.	The **citizen energy fund** in Schleswig-Holstein (*Bürgerenergiefonds*) is a revolving fund established in 2018, providing risk capital for citizen/community energy projects to pre-finance their upfront costs in the start-up phase. This fund served as a model for other state governments in Germany and even the federal government. Another instrument is the **Dialogue and Communication Platform** for energy cooperatives and community energy initiatives in North Rhine-Westphalia.
Do you know of any policy measures adopted **in other countries** which may serve as a **model for your country** in order to facilitate the development of RECs? If possible, provide a short description.	• Quantitative community energy targets in Scotland and the Netherlands • Separate bidding segments for RECs under the auction scheme in Ireland • Support for Energy Sharing in Italy

	• Community energy fund in the Netherlands

5. Overall assessment

Where do you see the most **urgent gaps/needs for policy action**? Which elements of the enabling framework are of highest importance?	Although Germany has achieved a comparatively high level of CE initiatives, in recent years the development of CE has been stagnating. The RED II has the potential to provide a new impetus. The new Federal government developed several promising policy measures which provide new opportunities for community energy. The new government decided to make use of the European de minimis rules and exempt community PV projects ≤ 6MW and community wind projects ≤18 MW from the auctions. It considerably raised the national RES targets and provides better remuneration for RES based electricity fed into the grid, it started to remove administrative barriers for RECs, collective self-consumption and tenant electricity. It also decided to provide start-up-financing for community wind farms through a dedicated support scheme (see above). This needs to be further complemented by enabling energy sharing, the removal of the manifold administrative barriers and provision of targeted advice for community initiatives, citizens and municipalities. The administrative bottlenecks in spatial planning and permitting still represent serious barriers for the mainstreaming of CE in general and RECs in particular. A key problem remains the increasingly complex permitting procedures which have deterring effects for CE projects. The new government pursues highly ambitious targets and started to reduce the complexity of permitting and planning and removing the administrative bottlenecks. Policy commitment is needed on community energy and RES targets to set up favourable long term policy conditions, grant stability to the system and foster a favourable investment climate at local level initiating a virtuous circle of socio-economic and environmental benefits.

Which actions should be taken at which level of government to put those priority elements into action?	<u>National government</u> • 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 the RED II. • Consider to set up a national target for community energy/energy communities by 2030. • Examine if the legal definition of citizen energy companies fully complies with the definition of RECs. Consider to develop a legal definition of CECs that fully complies with the requirements the IEMD and ensure that misuse will be avoided. • Reduce the administrative barriers for jointly acting self-consumption (e.g., remove the principle of personal identity between the operator and the final consumer). Extend the possibility of jointly acting self-consumption to a complex of buildings/neighbourhood concepts). • Facilitate energy sharing and introduce a proper regulatory framework. This may include exemptions from or reductions of grid charges, levies and surcharges on self-consumed electricity • Develop a transparent cost-benefit analysis of distributed energy sources. Systematically assess the contributions of RECs to enhance energy security and electricity grid stabilisation. • 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) • Ensure that DSO cooperate with RECs in the field of energy sharing.

	• Ensure access of RECs to all energy markets including flexibility markets. • Provide start up finance for RECs in all sectors (not only wind energy) and accompanying support (advise, capacity development, networking) in close cooperation with the federal states. • Remove the administrative barriers in spatial planning and project permitting. • Promote the digitalization of the energy transition and accelerate the rollout of smart meters. <u>Federal state governments</u> • 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 the RED II. • Consider to set up a regional target for community energy/energy communities by 2030. • Systematically assess potentials and barriers of RECs as required by the RED II. • Develop targeted accompanying measures in cooperation with the federal government enhancing experimentation, capacity development and institutional support through intermediaries like regional and local energy agencies. • Make sure that municipalities can financially engage in RECs. • Remove the administrative barriers in spatial planning and project permitting • Promote pilot projects in the field of energy sharing and disseminate their experiences <u>Districts/Municipalities</u>

	• Promote the idea of RECs, initiate REC projects and financially engage in REC projects • Provide suitable space for RES facilities operated by RECs (e.g., rooftops, land) • Provide financial support for the development of RECs including start up financing • Purchase energy produced by RECs • Facilitate the development of RECs by creating networks and neighbourhood concepts
Is there any strategic and coherent policy approach in promoting RECs noticeable? Do the different levels of government (national-regional-municipal) inhibit or reinforce each other when creating an enabling framework for RECs? How could coordination between the national and sub-national levels of government be improved?	The federal government is primarily responsible for establishing legislation on energy policy and the transposition of the RED II. However, the federal states (*Länder*) have also several important responsibilities, which are particularly relevant for the development of an effective and coherent enabling framework for RECs. They can set up own (renewable) energy targets, energy concepts/strategies, RES support programmes complementing federal support schemes and R&D programmes. Furthermore, they have important competences in the field of spatial planning and the designation of space for RES facilities, but also with regards to permitting. Further important responsibilities include the provision of information, advice and capacity development. The German Laender serve as important "laboratories for experimentation."[120,121] Moreover, the districts and municipalities perform important roles as they are partly responsible for spatial planning and siting for RES developments. There are many options for municipalities to support the development of RECs. They may act as initiators of or shareholders in a

[120] Ohlhorst, D., 2015, Germany's Energy Transition Policy between National Targets and Decentralized Responsibilities. J. Integr. Environ. Sci., 12, 303–322, doi:10.1080/1943815X.2015.1125373.

[121] Beermann, J.; Tews, K., 2017, Decentralised Laboratories in the German Energy Transition. Why Local Renewable Energy Initiatives Must Reinvent Themselves. J. Clean. Prod., 169, 125–134, doi:10.1016/j.jclepro.2016.08.130.

	REC and may purchase the energy produced by RECs. In their role as owners of land and property, municipalities may provide suitable sites for RES facilities operated by RECs. They may financially support RECs or can provide information and start up financing. Finally, they can help to build trust in and provide legitimacy to RECs. The creation of an enabling framework pursuant to the RED II needs to consider and integrate the subnational levels of government including the federal states, districts and municipalities. In the recent years, we saw a rather piecemeal policy approach. There has been hardly any strategic and coherent planning towards RECs and the level of "transformative vision" and "directionality"[122] has been poor. The previous governments showed low political commitment to advance CE and policy development was guided by market-based rationales rather than by the energy related and socio-economic benefits of CE. A coherent strategy for CE has been lacking. Vertical coordination between the federal and state level needs improvement. [123] It is essential to provide accompanying support to municipalities and CE initiatives. This is precisely where an enabling framework should come in. Both the federal government and the state governments have a key role to play in reducing the manifold administrative barriers and complexity of the planning and permitting processes. There are clear indications that the new federal government is going to intensify the dialogue between the federal level and the states.[124]
In your view, does, the RED II cover all elements of an "enabling framework"? Are there any measures which are	• In the future, the EU institutions should in their strategies, programmes and legislation highlight the important role of decentral

[122] Busch, H.; Ruggiero, S.; Isakovic, A.; Hansen, T., 2021, Policy Challenges to Community Energy in the EU: A Systematic Review of the Scientific Literature. Renew. Sustain. Energy Rev. 2021, 151, doi:10.1016/j.rser.2021.111535.
[123] Krug et al. (2022b).
[124] ibid.

missing? Which additional measures do key stakeholders propose for your country?	energy approaches including community energy for energy security, flexibility and grid stability. • European de minimis rules should be adjusted. The current thresholds for wind energy (≤18 MW) need to be adjusted to the market realities and the increasing sizes of turbines.

Country report: Italy

Author: Gilda Massa (ENEA)

1. Introducing definitions, rights and duties of RECs; corporate governance

Have RECs and CECs been formally introduced in the national legal framework? Please, indicate the respective legal acts.	After a testing phase based on a regulation contained in the Omnibus Decree Law 162/19) modified in Law 28/02/2020 n.8, issued by the Ministry for the Economic Development (MiSE) and in the resolution of 4 August 2020 (318/2020/R/eel) by the Regulatory Authority for Energy, Networks and the Environment (ARERA), on 4.11.2021, the Council of Ministers approved the legislative decree Nr. 199 for the transposition of the RED II and IEM Directives, which entered into force on 15 December 2021.
How have the following items been transposed? Is the legal definition of RECs in compliance with the RED II? (Art. 2,16 RED II) In which fields do you see transposition gaps?	Yes, the items listed have been transposed in Italian legislative decree 199/2021. The legal definition of REC complies with RED II.
Type of legal entity	The legal form is not predetermined, but RECs must comply with specific constraints with respect to the generation and distribution of profits. Several legal entities are allowed, providing they are non-profit entities.
Open and voluntary participation	The community is autonomous and here is an open and voluntary participation. For private companies, participation in the renewable energy community must not constitute the main commercial and / or industrial activity. The participation of members / shareholders in the community is voluntary, they can exit the community at any time and they pay some exit fees because, for example, of planned investments that

	have to change after their decision. These rules have to be stated on contracts.
Eligibility to participate/Membership	The REC is an autonomous legal entity and control power is exclusively executed by natural persons, small and medium-sized enterprises (SMEs are allowed to be member of a REC if energy is not their main business, commercial or industrial activities), territorial bodies and local authorities (including municipal administrations), research and training institutions, institutions of the third-sector and environmental protection as well as local administrations, which are located in the same municipality as the RE plant for sharing energy (Art.31, 1.b).
Effective control	The members (eligible to participate) have effective control in using the chosen governance structure.
Proximity	There is a constraint in the degree for REC physical creation: all the members of a REC must be connected to the main grid under the same substation. The proximity has been increased from the same low/medium voltage substation to the same high/medium voltage substation. In this way, more citizens and SMEs can become members of the same community because the high/medium substation connects more PODs under it. In the connection with a low/medium voltage substation a few dozen of PODs could be part of a REC. With the new legislative decree there is an upgrade toward the high/medium voltage substation, in this way several hundreds of PODs can join the same REC. The geographical proximity criterion has been modified under the new legislation (connection under the same high voltage substation).
Autonomy	A REC can share energy produced by the system owned by the community. The surplus of energy is fed into the grid and remunerated to the community by the local DSO. There are several DSO in Italy for local

	grid; they all follow the rules of the Italian Regulatory Authority for Energy, Networks and Environment (ARERA).
Primary purpose	The primary purpose is to provide environmental, economic or social benefits at the community level to RECs partners or members or to the local areas in which the community operates and not to make financial profits.
Does the definition of RECs also cover the heating/cooling sector and renewable gases?	Yes
Are RECs legally entitled to **produce**, **consume**, **store** and **sell** renewable energy?	Currently, RECs can sell their electricity only to Acquirente Unico, a centralized purchaser of electricity acting as an intermediary between providers and users. For the future, the energy market should be open for RECs.
Are RECs legally entitled to **act as DSO**? Do you know of any practical examples in your country?	Energy can be shared within the same market area, without prejudice to existence of the connection requirement to the same primary substation.
Do the rights of RECs refer both to electricity and heating/cooling and RES based gases?	A REC can produce all forms of energy (heating/cooling and RES based gases) from targeted renewable sources for use by members. RECs may promote integrated interventions of home automation and energy efficiency, as well as offer top-up services such as electric vehicles to its members and take on the role of a retail company and may offer ancillary services and flexibility.
Is **collective consumption** as defined in Art. 21 REDII **within buildings/building blocks** (without using the grid) possible? Where do you see the main barriers for **jointly acting self-consumers**?	Yes, and following the resolution of ARERA (318/2020) and the Ministry Decree (16.09.2020), RECs receive a refund of about 10€/MWh compared to the energy produced by the plant and used in collective consumption, plus a bonus of 100€/MWh (these data will be updated starting from 15.12.2021). It is, however, difficult to find surfaces to install enough PV plants to satisfy the request of each building/ building block because the available roof surfaces often are no sufficient.

Are RECs legally entitled **to share, within the REC, renewable energy** that is produced by the REC (using the grid)? Is there any **definition/regulatory framework for energy sharing** already in place? How is energy sharing regulated/promoted (e.g., exemption of fees, charges etc.)?	Each self-consumer can produce and store energy: RE sharing within the same building and condominium or common systems is possible. Decree 199/2021 defines the regulatory framework for energy sharing. The decree provides a definition for energy sharing: "shared energy": in a renewable energy community or in a group of renewable energy self-consumers who act collectively, equals the minimum, in each hourly period, between the electricity produced and fed into the grid by renewable energy plants and the electricity withdrawn from all associated final customers located in the same market area.
How is energy sharing regulated/promoted (e.g., exemption of fees, charges etc.)?	There is an economic incentive for energy sharing. The incentive is assigned through a rate paid by the Manager of Energy Services - GSE S.p.A. (hereafter: GSE) on energy electricity produced by the respective plant, or on the portion of its production that is fed into the grid or self-consumed. RECs obtain 110 EUR/MWh for the production of electricity plus 9 EUR/MWh as a reimbursement of the costs not incurred for the use of the electricity grid.
Which **institutional body** is responsible for registering RECs/CECs? Briefly explain.	GSE is a company entrusted to pursue and achieve environmental sustainability. It manages the incentive mechanisms promoting electricity generated from renewable sources as well as energy efficiency. GSE provides the application form, the contract sample and the technical rules containing the precise calculation criteria that may be necessary to obtain the incentives. It also sets up a specific interoperable portal that manages the registry of all RES generating plants for the purpose of accessing incentive service of shared electricity as well as for the technical and economic management of the service.

How many RECs (pursuant to RED II) have been officially registered in your country?	In April 2022, there were 20 RECs[125]; so defined in line with current legislation and regulations, others that share the spirit of the RED II and IEMD. This number does not include municipalities that use only renewable energy and the cases where energy community projects are still in the embryonic stage.
How many CECs (pursuant to IEMD) have been officially registered in your country? (estimate)	For CEC no official data are available yet.

2. Assessment of enabling frameworks

Which are the **key policy actors and public authorities responsible** for developing an enabling framework for RECs in your country? (e.g., national/regional ministries, national/regional public authorities, public/state agencies?)	Central government and regional governments are entitled to define regulatory framework and national public companies are in charge of defining technical implementation rules.
Which are other key **actors** (non-public) promoting the development of RECs? (e.g., community energy associations, etc.)	SMEs, community energy associations, many of the actors who could participate in the development of these initiatives are waiting to understand how the evolution of the legislation will impact the diffusion of RECs.
What have been **key driving forces** and **enablers of community energy** in your country so far? (before RED II was adopted)?	Exploitation of renewable sources to reduce dependence on traditional energy sources. GSE manages 20 incentive mechanisms to promote RES and energy efficiency.
Has the national or regional government(s) carried out any **assessment of the existing barriers and potential of development** of REC? (Art.22,3 REDII)? What are the	There are several projects under examination with different models and at national level these case studies are analyzed. The first findings and the first lessons learned are being examined. Italy´s goals are to achieve an

[125] Utilitatis pro aqua energia ambiente et al., 2022, Orange book of energy communities in Italy, https://www.rse-web.it/wp-content/uploads/2022/02/OrangeBook-22-Le-Comunita-Energetiche-in-Italia-DEF.pdf; Legambiente, 2022, Comunità Rinnovabili, https://www.legambiente.it/wp-content/uploads/2021/11/Comunita-Rinnovabili-2022_Report.pdf

main findings and recommendations? To what extent have these been considered by the government?	increased share of energy produced from RES, strengthening and digitizing the network infrastructures to accommodate the increase of RES-E production.
Do competent authorities at national, regional and local level include **provisions** for the **integration and deployment of renewable energy**, including for **RECs** in the field of **spatial planning**? Do competent authorities at national, regional and local level include **provisions** for the **integration and deployment of renewable energy**, including for **RECs** when designing, building and renovating **urban infrastructure**, industrial, commercial or residential areas and energy infrastructure? (Art.15,3 REDII)	Some regions are transposing national legislation into regional laws. At the national level, the National Recovery and Resilience Plan (PNRR), approved on 13 July 2021, comprises about 60 billion EUR of investments in the "Green Revolution and Ecological Transition". Thereof, 23.78 billion are devoted to RES and specifically 2.2 billion for the development of energy communities. Each region and municipality have to present projects that could build on existing urban infrastructure.
In which areas do you identify key **regulatory and administrative barriers** for RECs? Have national/regional governments recognized and addressed these barriers as well? Have they undertaken measures to remove those barriers (Art.22,4 RED II)?	The ongoing transitional regulation and the legislative process is not yet concluded. This can represent an element of uncertainty for the development of RECs, including the consideration of regulatory risks associated with the authorization process for the installation of systems. Another key barrier is the difficulty in engaging citizens and the PA (in particular small sized municipalities) due to limited knowledge about RECs and their benefits. The National Recovery and Resilience Plan is an opportunity to overcome these barriers, funding small municipalities (under 5,000 citizens) for REC implementation.
Are RECs subject to **fair, proportionate and transparent procedures,** including **registration and licensing procedures?** (Art.22,4 RED II) Where do you see shortcomings? Are there any procedures tailored specifically for RECs?	There are agreements to be signed and technical rules to be fulfilled in order to be registered and to be recognized as a REC. A barrier is that there are no fixed maximum days to receive formal approval from DSO to sign the contract.

To what extent do the responsible authorities take measures providing that the **relevant DSOs cooperate with RECs** to facilitate energy transfers within RECs? (Art.22,4 RED II) Please, describe the scope of respective regulations.	There is no specific measure to enhance the cooperation DSO – REC. The final customers and producers that are part of the REC, through a contact person (legal representative of the REC) have to apply to the GSE for the use of data relating to their connection points to the purpose of verifying the requirements and for the enhancement and incentive of shared energy. No discrimination is allowed, and this is stated in Decree 199/2021.
Do RECs benefit from any preferential network charges or any other preferential treatment with regard to network charges/tariffs etc.?	RECs can claim an economic for shared energy (see above). Shared energy means the minimum in each period (one hour) between the electricity produced and fed into the grid by renewable plants and the requested electricity from the local grid (under the same HV/MV substation). At the moment they use a unified national price (PUN) that is calculated day by day by the energy authority.
Have the national competent authorities developed a **transparent cost-benefit analysis** of distributed energy sources? Do, in your view, the relevant fees, **charges, levies and taxes** ensure that RECs contribute in an **adequate, fair and balanced way** to the **overall cost sharing** of the system taking into account the costs and benefits RECs can provide to the energy system (Art.22,4 RED II)	RECs can represent a means for solving the problem of energy poverty. Following the data for 2020 published by the OIPE report[126], 2.1 million families live in energy poverty or 11% of the population (just over 6 million people) according to Eurostat. Energy poverty is therefore a persistent problem in Italy for which the solutions found so far appear to be inadequate. Through self-consumption and favoring the use of RES through other means than the ones employed up to now, namely subsidies, RECs may be able to mitigate the main limitations and to provide remedies for energy poverty in the concerning areas. The PNRR provides specific funding for the promotion of renewables and for energy communities and self-consumption. Using PNRR resources the municipalities under 5,000 inhabitants aim to install about 2,000 MW of new electricity generation capacity in distributed configuration by REC and renewable energy self-consumers. We assume

[126] OIPE, 2020, 1st Report of the Italian Observatory on Energy Poverty, https://oipeosservatorio.it/wp-content/uploads/2020/12/rapporto2020_v2.pdf

	that the installation of photovoltaic systems with an annual production of 1,250 kWh per kW would produce about 2,500 GWh per year and be able to avoid the emission of 1.5 million tons of CO_2 annually.
Are RECs subject to any **discriminatory treatment** with regard to their **activities, rights and obligations** as final customers, producers, suppliers, DSOs, or as other market participants? (Art.22,4 RED II)	No discriminatory treatment
Is the participation in the RECs **accessible to all consumers**, including **low-income or vulnerable households?** (Art.22,4 RED II) Are there any **specific policy measures** to facilitate the participation of low-income and vulnerable groups?	Art 31,1 d) Legislative Decree states that participation in RECs is open to all consumers, including those belonging to families of low income or vulnerable households. Control power is held by the subjects having the characteristics referred to in b) (individuals, SMEs, territorial entities and local authorities, including the municipal administrations, research and training institutions, religious, third sector and protection bodies, environmental and local administrations).
Are there any policy measures/tools available or planned **to facilitate access of RECs to finance**? (Art.22,4 RED II) (e.g., investment support, start-up financing, risk capital). Please, also consider cohesion funds and ESIF, national resilience and recovery fund. Please briefly describe.	Article 14 of Legislative Decree 199 defines the specific coordination criteria amongst the measurements introduced by the National Recovery and Resilience Plan (PNRR) and the instruments for sectoral incentives. In particular, paragraph e) specifies that “in implementation of the measures Mission 2, Component 2, Investment 1.2 “Promotion of renewables for community’s energy and self-consumption "are defined criteria and methods for granting financing interest-free up to 100% of eligible costs, for the development of the energy community, as well as defined in Article 31, in small municipalities through the construction of RES production plants, also combined with energy storage systems. The same decree defines the conditions for cumulation with the tariff incentives referred to in Article 8 of this legislative decree.
Are there any measures/tools available/planned **to facilitate access to information**? Is there any	GSE is engaged in the evaluation of investments eligible for incentives and in supporting citizens, professionals, companies, local authorities, for

legal/technical support or **institutional support**? Please briefly describe.	supporting the implementation of projects development of renewable sources and energy efficiency. The Energy System Research Company (RSE S.p.A.) is in charge of the measurement campaigns and monitoring already activated in the implementation of article 42-bis of legislative Decree Nr. 162 of 30 December 2019. It verifies the technical and economic effects of technical plants configuration and also their prospective interactions with the electricity system, also identifying any effects on the costs of dispatching and allocation criteria for network services. The results of the monitoring activities are communicated and made available electronically on an annual basis to the Ministry of Ecological Transition and to ARERA as well as the region and the territorially competent municipalities to improve the level of knowledge of the state of implementation of the configurations made in implementation of the legal framework.
Is regulatory and capacity-building support provided **to public authorities** to enable and set up RECs, or to participate directly in RECs? (Art.22,4 RED II)	There are pilot projects that are becoming exemplary for other REC configurations. A national framework is being set up but, at the moment, several activities are ongoing led by different stakeholders.
Are there any rules in place to secure the **equal and non-discriminatory treatment of consumers** that participate in the REC?	Yes, it is part of legislative decree 199.2021.
Are there any **national or regional objectives or targets for RECs** and **community energy** in general? (quantitative and/or qualitative)	The PNRR, as part of the Mission n.2 and Component 2 task - Renewable energy, hydrogen, network and sustainable mobility, provides 2.2 billion EUR of specific funding for the promotion of RES through energy communities and self-consumption. The target of the investment is identifying PA, families and micro-enterprises in municipalities with less than 5,000 inhabitants who can benefit of funding for RECs creation in order to support local economy, social cohesion, as well as to combat depopulation.

Are there any **dedicated support schemes for RECs/community energy** in general providing **operational support**?	There are technical rules defined by GSE.[127]

3. Assessment of RES support scheme[128] designs

What are the **key existing support schemes for renewable energy** in the field of electricity? (e.g., investment support via cohesion funds and ESIF, resilience and recovery funds; operational support via feed in premiums, competitive bidding/auctions etc.) Are there any modifications to existing support schemes/new support schemes planned in the future?	In Italy, the first experiences with RECs have been already made in the early 2000s, mainly in the Piedmont Region. Only in recent years, however, have energy communities started to take on a new model aimed at increasing end-user participation, based on the principles of self-consumption and environmental sustainability. Indeed, RECs are mentioned for the first time by the Italian Energy Strategy (2017) and, subsequently, by the National Energy and Climate Plan in 2018. There are several incentive mechanisms for renewable energy available to individuals, companies and public administrations: green certificates; "tariffa omnicomp" (i.e., tariffs for the withdrawal of electricity fed into the network, the value of which includes both the incentive component and a component for enhancing the electricity fed into the network); Ministry Decree 23 June2016 and 6 July 2021 (Incentives for the production of electricity from plants powered by renewable sources other than photovoltaic, with a power of no less than 1 kW).
To what extent do national and regional governments **take into account the specificities of RECs** when designing support schemes for RES-E? (e.g., special rules, preferential treatment)	RECs have been identified as stakeholders for a bottom-up approach on RES-E implementation in the National Recovery and Resilience Plan.

[127] GRUPPI DI AUTOCONSUMATORI DI ENERGIA RINNOVABILE CHE AGISCONO COLLETTIVAMENTE E COMUNITÀ DI ENERGIA RINNOVABILE Regole tecniche per l'accesso al servizio di valorizzazione e incentivazione dell'energia elettrica condivisa, GSE, 04.04.2022

[128] In accordance with Art.2 of RED II **support scheme** means 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.

If **auctions** represent the key support scheme for RES-E in your country: have any of the following measures been implemented or are such measures planned? Please briefly describe.	Self-produced energy is used primarily for instant self-consumption on site or for sharing between members of the community, while the possible excess energy can be accumulated and sold through purchase and sale agreements, directly or through aggregation. In Legislative Decree 199/2021 art5 comma2: for large plants, with power equal or above to 1 MW, the incentive is attributed through procedures competitive bids made in relation to power contingents. Is under definitions the implementation model (180 days from 15.12.2021). RECs in Italy can own small plants under 1MW; the implementation model is currently under definition. However, a REC can have more than one power plant up 1 MW, but there is no limit for the number of installed plants.
*Exemptions for RECs from taking part in auctions/ Use of the **de minimis rule**[129]*	
*Special **bidding windows/categories** for RECs within the auction system (e.g., like in Ireland)*	
*Special REC related **pre-qualification criteria** all bidders have to fulfil in order to take part in the auctions (e.g., minimum number of shares offered to RECs/local communities, existence of a community engagement plan)*	
***Multi-criteria assessment** for selection of successful bids (i.e., selection not only based on the offered*	

[129] The new **Climate, Energy and Environmental State Aid Guidelines (CEEAG) (https://ec.europa.eu/competition-policy/sectors/energy-and-environment/legislation_en)** provide additional flexibility for RECs, allowing Member States to exempt REC projects and SME-owned projects below 6 Megawatts (MW) of installed capacity from the competitive bidding requirement. RECs and small and micro enterprises may also develop wind projects up to 18 MW without competitive bidding. More generally, where competitive bidding does apply, the CEEAG enable Member States to design tenders in a way which enhances the participation of energy communities, for example by lowering pre-qualification requirements.

price/remuneration level, but also on social criteria, e.g., community co-ownership etc.)	
*Special **pricing rules** for RECs (e.g., uniform pricing in Germany, bonus payments in France)*	
Others	
Are the existing/proposed measures under section 3 sufficient to effectively facilitate the development of RECs? What should be improved?	These incentives can be cumulated, under specific conditions, with the Superbonus provided by Legislative Decree n. 34 of 9 May 2020 which establishes tax deductions up to 110% for energy efficiency interventions and new installations of RES. In particular, building renovations which enables an increase of two energy classes are incentivised.
Which other accompanying support measures specifically targeting RECs do exist in your country (in addition to those mentioned above in sections 2 and 3; e.g., R&D programmes, regulatory sandboxes, others)?	In Italy, each region can develop specific accompanying support measures for RECs via regional laws connected to national scenarios and the region can also co-fund activities via the Structural Fund (for example in Lombardia Region).

4. Novel and promising policy measures

Do you know of any **novel or promising policy measures** on a national/regional/local level **in your country** which may serve as a model for other countries/regions/municipalities in order to facilitate the development of RECs? If possible provide a short description.	The National legislative decree 199/2021 is a very good example for the REDII transposition at national level and the REC model implemented in Magliano Alpi (governance and business model, too) could be applied in other countries.
Do you know of any policy measures adopted **in other countries** which may serve as a **model for your country** in order to facilitate the development of RECs? If possible provide a short description.	Policy measures applied in Flanders for REC implementation could be useful for Italy, too. Elements of interest include: • Clear vision of the city on implementation and future development of RES on its territory creates a stable, regulatory framework for

	local RES projects and increases trust in the local authority (e.g., wind plan of city of Eeklo (1999) based on principles such as wind as a common, wind as a local product, public locations, direct participation of citizens, local added value). • Detailed tender criteria as an enabler for collaboration between the city and citizen cooperatives. Criteria in wind tender in Eeklo (1999 and 2009). • Citizen participation as a way to minimize opposition and maximise added value within the community. • Direct participation of citizens contributes to ownership and engagement, local anchoring of the RES project and local added value, energy democracy and autonomy. Showcasing good practices boosts the cooperative movement (increases the amount of social capital raised) and support for local RES project (reduces number of appeals against permits).

5. Overall assessment

Where do you see the most **urgent gaps/needs for policy action**? Which elements of the enabling framework are of highest importance?	If the goal is to make community energy a means for the ecological transition, it is necessary to act to increase the efficiency of the plants and the number of actors involved, making these realities increasingly present and active in the area. The energy sources used in energy communities are very often limited to solar or hydroelectric energy (at least for the experiences related to historical cooperation) or wind turbines (but with a lot of criticalities on sustainable impact on the landscape). However, technological innovations could contribute to the development of other sources such as biogas or biomass. Technological

	innovation is therefore necessary for the achievement of the objectives of energy and environmental benefits of RECs.
Which actions should be taken at which level of government to put those priority elements into action?	The experiments conducted so far show that the success of energy communities largely depends on how managerial capabilities are implemented. Specific skills are necessary in the governance structure of a REC. If the main activity is only savings in the energy bill, then a limited involvement of consumers in decision-making processes related to the energy community can be considered acceptable, but if citizens look at a broader purpose of reinvesting in the area and the creation of one local community, than an active participation in the management of the REC by all parties involved is necessary. Concerning the topic of participation, it seems clear that for the success of RECs it is essential to create a collaboration with the PA.
Is there any strategic and coherent policy approach in promoting RECs noticeable? Do the different levels of government (national-regional-municipal) inhibit or reinforce each other when creating an enabling framework for RECs? How could coordination between the national and sub-national levels of government be improved?	The coordination between national – and subnational level is growing day by day and several regions are preparing regional laws. After the establishment of a national regulatory framework in 2020, several regions developed their own regulatory framework for energy communities which address some specific local issues while remaining within the context established by national legislation. In some cases, some definitions are in contrast with the current national regulation such as for Piedmont where the regional regulation does not place limits on proximity. The Apulia Region published the Resolution of the Regional Council n. 1346 of 7 August 2020 the final approval of the implementation of guidelines for the already existing Regional Law n. 45 of 9 August 2019 “Promotion of the institution of the energy communities. Following Piedmont and Apulia, Liguria has also approved a law for the promotion of energy communities. The Regional Law n. 13 of 6 July 2020 aims at promoting self-consumption and distributed generation through the

	creation of groups consisting of public and private entities and at aggregating them for production, consumption and storage of energy. Recently, the Calabria Region published its resolution for RECs the Regional law n.25 of 10 November 2020 that promotes the establishment of renewable energy communities, for the production, exchange, storage and sale of renewable energy for the purposes of self-consumption and for the reduction of energy and social poverty, as well as for the creation of forms of efficiency and reduction of energy withdrawals from the grid. Other Regions - Sardinia, Emilia Romagna and Lombardy- have currently set up a regional legal framework to implement energy communities.
In your view, does, the RED II cover all elements of an “enabling framework”? Are there any measures which are missing? Which additional measures do key stakeholders propose for your country?	Standardized process for data energy collection (from each PODs in order to share the bonus received from GSE accordingly to the energy saving activity of each member of the community) and management.

Country report: Latvia

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1. Introducing definitions, rights and duties of RECs; corporate governance

Have RECs and CECs been formally introduced in the national legal framework? Please, indicate the respective legal acts.	The introduction of RECs and CECs into the national legal framework is made possible by amendments to two laws, both finally adopted by the Parliament (*Saeima*) on 14 July 2022: 1. Amendments on the Law on Energy[130] 2. Amendments on the Electricity Market Law.[131] The provisions of both amendments will come into force on 1. January 2023. **The Amendments on the Law on Energy** provide the general framework for energy communities. The amendments introduced a legal definition for one single concept, called "energy community", afterwards, the amendments provide further specifications for RECs and 'electricity energy communities' (Latvian term for CEC). An energy community can correspond either to one of these types or simultaneously to both types. **By 28 February 2023,** the *Cabinet of Ministers* shall issue (governmental) regulations pursuant to the Amendments on the Law on Energy to specify the following: • Proximity criteria (territorial linkage of the REC with the REC-utilising energy production technology),

[130] https://likumi.lv/ta/id/334150 (in Latvian).
[131] https://likumi.lv/ta/id/334153 (in Latvian).

	• Rules regarding procedures and conditions of the Aid for Commercial Activity to be granted to energy communities, • Matters to be dealt with by energy community statute, particularly use of profit (if there is any), • Rules that determine the relations among the members/shareholders of an energy community, the representative of an energy community and other energy users and energy supply merchants, including power system operator and heat supply system operator, • Energy community registration requirements, the information which shall be included in: (i) the Register of Energy Communities, (ii) the application for registration (as well as termination of operation) of an energy community, (iii) the annual report of an energy community. **By 30 June 2023,** the *Ministry of Economics*, in co-operation with the *Ministry of Environmental Protection and Regional Development*, will elaborate and publish the 'Guidelines for the Formation of Energy Communities', including the recommendations for public persons (public authorities) regarding the provision of public support for energy communities and their participation in energy communities. The Amendments to the Electricity Market Law specify the activities, rights and duties of both jointly acting self-consumers and energy communities in the electricity sector. Among others, such new terms as the 'Active Customer', 'Jointly acting renewable electricity active customers', 'Electricity Sharing'[132], or 'Flexibility Services' have been introduced.

[132] According to the definition provided by these Amendments, electricity sharing is (i) the transfer of electricity, produced by an active customer and transferred to the system, to other end-users, including active customers, or (ii) transfer of electricity, produced in a electricity energy community (CEC) and transferred to the system, to members or shareholders of the electricity energy community. The active customer has the right to participate in only one electricity energy community at the same time and transfer electricity for sharing only within this electricity energy community. The active customer is not considered as an energy supply merchant.

	By 28 February 2023, the regulations shall be issued detailing the procedures of electricity sharing.
How have the following items been transposed? Is the legal definition of RECs in compliance with the RED II? (Art. 2,16 RED II) In which fields do you see transposition gaps?	The noted Amendments provide a REC definition which complies with RED II.
Type of legal entity	The Amendments on the Law on Energy state that the legal forms of energy community (including REC) can be the following: • association, foundation,[133] • cooperative society,[134] • commercial company - partnership or capital company, • other civil liability society.[135] If a REC is a capital company, the statutes of the company should provide that (1) the goals defined in company's statutes correspond to the goal (purpose) of the REC and the capital company performs the economic activities of REC defined by law, and (2) the profit shall not be paid as dividends but shall be re-invested to meet the objectives defined by the statutes.
Open and voluntary participation	The Amendments on the Law on Energy do not include any provisions related to an open and voluntary participation. At the same time, the amendments do not provide any limits regarding the access of new members in the energy community or any other limitations. Nonetheless, the rules regarding openness and voluntariness are partially provided by the relevant legal form to be chosen for the REC.

[133] According to Associations and Foundations Law, https://likumi.lv/ta/id/81050
[134] Cooperative Societies Law, https://likumi.lv/ta/id/298656
[135] Civil Law, https://likumi.lv/ta/id/225418

	As noted above, proximity criteria referring to the territorial linkage with the installed RES-utilising energy production technology will be elaborated by the *Cabinet of Ministers* in a separate regulation. Further, the relations among the members of REC will also be specified by a regulation of the *Cabinet of Ministers*.
Eligibility to participate/Membership	Pursuant to the Amendments on the Law on Energy, the following entities may be members of a REC: • physical persons, • SMEs, • municipalities. In addition, the members/shareholders of CEC can be also other public persons.
Effective control	Provisions ensuring effective control are provided by the Amendments on the Law on Energy. REC members or shareholders participate in making the decisions that provides decisive influence or actual control in the energy community, in particular in making the decisions concerning: • ownership rights or the rights to use all assets of the energy community or their decisive part, • rights or legal transactions that give decisive influence regarding the composition of the REC governing body, votes or the decisions made by the governing body. The *Cabinet of Ministers* shall adopt the regulation covering the relationships among the members/shareholders of an energy community.
Proximity	Criteria have not been elaborated yet.

	Proximity criteria (i.e., territorial linkage of the REC with the RES-utilising energy production technology) shall be elaborated by the *Cabinet of Ministers* by 28 February 2023.
Autonomy	Not specified directly. The Amendments to the Law on Energy do not include any particular provisions in relation to autonomy. The *Cabinet of Ministers* shall adopt a regulation that will address the relationships among the members/shareholders of the energy community. This regulation will be related to the issue of effective control and shall also help to avoid that certain members/shareholders obtain a decisive role in the REC (directly or through other members/shareholders). Additionally, transparency and control of commercial activity of energy community will be covered.
Primary purpose	The Amendments on the Law on Energy state that the purpose of an energy community (including REC) is energy production for its members/shareholders providing economical, societal and environmental benefits to the members/shareholders of the energy community or to the area in which the energy community operates. The amendments explicitly state that the primary purpose of an energy community is not the generation of the profit.
Does the definition of RECs also cover the heating/cooling sector and renewable gases?	Yes. The Amendments on the Law on Energy state that a REC deals with renewable energy in general (any type of renewable energy is eligible). Thus, renewable heating/cooling as well as renewable gases are eligible.
Are RECs legally entitled to **produce**, **consume**, **store** and **sell** renewable energy?	Yes. These entitlements are included in the Amendments on the Law on Energy.
Are RECs legally entitled to **act as DSO**? Do you know of any practical examples in your country?	RECs are not legally entitled to act as DSO. The Amendments to the Electricity Market Law provide that an energy community does not have the right to acquire and hold in ownership, to

	establish, purchase or lease the power distribution networks and to operate them autonomously.
Do the rights of RECs refer both to electricity and heating/cooling and RES based gases?	Yes. The Amendments on the Law on Energy state that RECs deal with the overall renewable energy sector. Thus, both renewable electricity, renewable heating/cooling as well as renewable gases are eligible.
Is **collective consumption** as defined in Art. 21 REDII **within buildings/building blocks** (without using the grid) possible? Where do you see the main barriers for **jointly acting self-consumers**?	The Amendments to the Electricity Market Law provide that: 'Jointly acting renewable electricity utilising active customers' is a group consisting of at least two final customers that corresponds to the following criteria: (1) the electricity production and consumption equipment of each jointly acting renewable electricity customer is connected to the power distribution grid, at least one jointly acting customer has an electricity production equipment, utilising RES, which is also used by the other jointly acting customers; (2) the system operator has issued a permit for connecting electricity production equipment for parallel work with the system, (3) jointly acting renewable electricity utilising customers act together in a single building or in a single real estate of other type, (4) based on the mutual agreement, they jointly produce electricity from renewables for own needs as well as share it. The 'Jointly acting renewable electricity utilising customers' shall enter into the agreement with the system operator or another participant of the electricity market for the selling or the sharing of surplus electricity produced as well as for the entering in the providing flexibility services or the entering in the energy efficiency schemes. 'Jointly acting renewable electricity utilising customers' also provide for electricity sharing in accordance with the signed agreement with the

	electricity trader; electricity sharing shall take place within a single trading interval; electricity not consumed immediately is not accumulated for the sharing in another trading interval, it shall be sold to the electricity trader at the agreed upon price. The 'Active renewable electricity utilising customer' shall pay in full for the received system services. From the technical point of view, electricity sharing without using the power distribution grid is possible in multi-apartment buildings which have a single connection point with the distribution grid at the energy conversion box which have the electricity consumption accounting for the whole building. Behind the energy conversion box the inner power lines belong to the multi-apartment building (ownership of the community of apartment owners) and the electricity accounting system provides electricity consumption accounting both for particular apartments as well as for common premises. However, such apartment buildings represent only a minor share in Latvia.[136]
Are RECs legally entitled **to share, within the REC, renewable energy** that is produced by the REC (using the grid)? Is there any **definition/regulatory framework for energy sharing** already in place? How is energy sharing regulated/promoted (e.g., exemption of fees, charges etc.)?	The Amendments on the Law on Energy state that electricity sharing is one of the principally eligible activities of energy communities. The Amendments on the Electricity Market Law state that the members/shareholders of the electricity energy community are final customers and active customers connected to the system of single system operator - meaning that sharing shall be organized within the area of one distribution system operator. These Amendments include the following provisions:

[136] See „Feasibility study on the identification of projects for RECs and their technical and economical feasibility evaluation: final version" (*Atjaunojamās enerģijas kopienu projektu identificēšana, to īstenošanas tehnisko un finansiālo aspektu novērtējums: gala versija un pielikumi*), prepared by Ltd. "eBIOpowers" within the Energize Co2mmunity project, contracted by the Riga planning region, presented 26th October 2021 public workshop organized by the Ministry of Economics and Riga Planning Region.

	• the electricity energy community, prior to the commencement of its operations, shall enter into an electricity sharing agreement with the electricity trader, • electricity sharing is provided by the electricity energy community in accordance with the signed agreement with the electricity trader; • electricity sharing shall take place within a single trading interval; not immediately consumed electricity is not accumulated for the sharing in another trading interval, it shall be sold to the electricity trader at the agreed price, • electricity sharing does not affect the rights and obligations of the parties involved as final customers, producers, traders or aggregators, • the electricity energy community uses the transmission and distribution systems for electricity sharing according to the system services tariffs defined by the Electricity Market Law and the Law on Regulations of Public Utilities.[137]
How is energy sharing regulated/promoted (e.g., exemption of fees, charges etc.)?	A detailed governmental regulation for electricity sharing and related conditions is currently elaborated. It shall be adopted by the *Cabinet of Ministers* by 28 February 2023. The Amendments on the Electricity Market Law provide the principal option for different tariffs (see below).
Which **institutional body** is responsible for registering RECs/CECs? Briefly explain.	The Amendments on the Law on Energy state that the responsible body is the *State Construction Control Bureau of Latvia*.[138] The *State Construction Control Bureau* is responsible for both the establishment, maintenance, administration and management of the Register of Energy Communities, making records and updates in the register as well as ensuring public availability of the register.

[137] https://likumi.lv/ta/id/12483
[138] https://www.bvkb.gov.lv/en

	Since 1. January 2020, the *Bureau* is responsible for ensuring the monitoring of energy efficiency, supervising fulfilment of the obligation to introduce Energy Management Systems in national authorities and local governments, ensuring control over the fulfilment of mandatory obligations of energy audits/energy management systems of large electricity consumers and large enterprises, as well as performing other duties regarding energy efficiency. In the field of electricity, the *Bureau* is responsible for tasks such as the supervision and control of electricity mandatory procurement (FIT) procedures as well as for organizing the electricity trading service to protected users.[139]
How many RECs (pursuant to RED II) have been officially registered in your country?	The register has not been established yet. Also, RECs are not established yet in practice.
How many CECs (pursuant to IEMD) have been officially registered in your country? (estimate)	The register has not been established yet. Also, CECs are not established yet in practice.

2. Assessment of enabling frameworks

Which are the **key policy actors and public authorities responsible** for developing an enabling framework for RECs in your country? (e.g., national/regional ministries, national/regional public authorities, public/state agencies?)	• *Ministry of Economics* • *State Construction Control Bureau of Latvia* • *Public Utilities Commission* (Regulator) • Distribution system operator (DSO) *Sadales tīkli AS*[140]

[139] Protected users are electricity consumers who receive state financial support for the payment of electricity bill, particular groups of protected users are poor or low-income family (person), large family, family (person) caring for a child with a disability and person with the highest (No1) disability group.
[140] https://sadalestikls.lv/en/

	In addition, some regional planning authorities, for instance, the Riga planning region, and few energy agencies, such as the Riga city energy agency or the Zemgale region energy agency, are active promoters of the REC concept. The important role of Latvia's planning regions is also underlined by the background annotation of the Amendments on the Law on Energy.
Which are other key **actors** (non-public) promoting the development of RECs? (e.g., community energy associations, etc.)	Other non-public actors have not been very active so far. It might be noted that several neighborhood associations (dominantly in the capital city Riga) show interest in relation to REC establishment. In the Latvian COME RES events, as well as in another events, the representatives of several local partnerships (Leader groups) have participated thus expressing potential interest for RECs in rural areas. These actors can be regarded as potential enablers.
What have been **key driving forces** and **enablers of community energy** in your country so far? (before RED II was adopted)?	Before the adoption of RED II, there were no public debates or concerns regarding community energy (in a traditional meaning of this term) in Latvia. EU-funded projects, like the Co2mmunity project[141] have helped to implement the first pilot projects at single building scale in 2020. There were/are several joint citizens' initiatives related to the utilization of renewable sources for providing increase of self-sufficiency. Such initiatives relate to: (1) apartment owners in multi-apartment buildings who have jointly installed heat production technologies utilizing RES (biomass heat, solar heat, heat pumps). There are several examples of such cooperations at the scale of multi-apartment buildings, (2) particularly in small scale rural villages there are cases where residents establish(ed) joint heating systems covering a range of buildings,

[141] https://co2mmunity.eu/pilots/latvia, funded by the EU Interreg Baltic Sea Region programme.

	(3) There is a rural partnership (LEADER group) network, coordinated by the association *Latvian Rural Forum*.[142] This network potentially might serve as an enabler of community energy in rural areas. Latvia rural partnerships participate in an EU-wide initiative on smart villages, so smart energy might become a part of smart villages. Also, there are several initiatives[143], financed by the LEADER program to promote energy self-production at farm level. More rural farm partnerships might be developed.
Has the national or regional government(s) carried out any **assessment of the existing barriers and potential of development** of REC? (Art.22,3 REDII)? What are the **main findings and recommendations?** To what extent have these been considered by the government?	Regarding the requirements of RED II, no detailed assessment by any state public authority has been carried out. The Amendments on the Law on Energy refer to the NECP2030 and use the assessments carried out by several EU-funded projects: (1) *COME RES project* (Horizon 2020 program) – evaluation of the energy communities' potential in Latvia (Deliverable 2.2[144], 2021) and Synthesis case studies of drivers and barriers (Deliverable 2.3[145], 2022); (2) Co2mmunity project (EU Interreg Baltic Sea Region program, 2019-2020)[146]; (3) Material provided by *CEE Bankwatch Network* and *REScoop.eu*[147] Key conclusions regarding the general barriers are: • Public participation if energy production is generally low.

[142] https://laukuforums.lv/en/par-llf-en
[143] For instance, the project "Off grid: renewable energy DIY (Do IT Yourself) for rural development": http://www.abulas.lv/lv/projekti/starptautiskais-projekts-off-grid-diy
[144] Laes et al. (2021): D2.2 Assessment report of potentials for RES community energy in the target regions, COME RES, https://come-res.eu/resource?uid=1152
[145] Standal et al. (2022): D2.3 Synthesis case studies of drivers and barriers, COME RES, https://come-res.eu/resource?uid=1300
[146] https://interreg-baltic.eu/project/co2mmunity/
[147] Bankwatch Network, REScoop.eu (2022): Energy communities: a brief explainer for managing authority in Central and Eastern Europe, https://www.rescoop.eu/toolbox/energy-communities-a-brief-explainer-for-managing-authorities-in-central-and-eastern-europe

	• Until now, Latvia's energy policy provides only little support for community energy projects. • the liberalization of the centrally governed energy system has not yet become open to public initiatives and is not sufficiently open to hybrid forms of cooperation. • A general barrier is the lack of experience in 'sharing economy', negative experience or its lack regarding the joint ownership, lack of corporate culture. Further, there is a lack of functioning business models for energy communities adapted and tested under domestic conditions. Referring to the findings of the projects mentioned above, we would like to point out to the following factors necessary to promote energy communities: importance of both financial factors (access to financial support for the organization phase of the energy community; access to upfront investments, access to bank financing or other financial instruments, etc.), and competence related factors (necessity of project management skills, legal competence, technical and organizational skills). There is still a lack of these factors in Latvia. Important preconditions are the predictability of the regulatory framework in the long term, efficient coordination between competent public bodies, the interest of local governments in creating energy communities, the emergence of local activists/ role models. The Riga Planning Region has performed few feasibility assessments; however, these assessments treat building-scale energy communities only. For instance, in October 2021, a feasibility study, contracted by the

	Riga Planning Region has been presented[148]. This study particularly focused on electricity sharing as a highly important feature of RECs and presented the technical and legal barriers for electricity sharing considering the regulatory situation in 2021).
Do competent authorities at national, regional and local level include **provisions** for the **integration and deployment of renewable energy**, including for **RECs** in the field of **spatial planning**? Do competent authorities at national, regional and local level include **provisions** for the **integration and deployment of renewable energy**, including for **RECs** when designing, building and renovating **urban infrastructure**, industrial, commercial or residential areas and energy infrastructure? (Art.15,3 REDII)	Provisions promoting REC are not included. Current situation: In July 2022, the *Cabinet of Ministers* has approved the Regulation on Implementation of Energy Efficiency Measures and RES technologies in Multi-Apartment Buildings co-financed by Latvia's Plan of the EU Resilience and Recovery Facility.[149] As one of the eligible activities, which might be implemented simultaneously with building related energy efficiency improvements this regulation includes the purchase and installation of electricity microgeneration technologies utilising RES, provided that at least 80% of the annual electricity produced should be self-consumed. However, the current version of the regulation does not deal with jointly acting self-consumers. Thus, during the elaboration of a subsequent regulation which will address the use of ERDF financing (within the framework of the Latvia's EU Cohesion Policy Program for 2021-2027), collective self-consumption should be advocated/promoted. Similarly, regulations referring to energy efficiency and RES implementation in the commercial sector and public buildings, to be financed by the Latvia's Plan of the EU Resilience and Recovery Facility, also include as an eligible activity the installation of RES-utilising electricity micro-generation technologies focused on self-consumption, but this activity is not considered in the context of wider area and RECs.

[148] „Feasibility study on the identification of projects for RECs and their technical and economical feasibility evaluation: final version" (*Atjaunojamās enerģijas kopienu projektu identificēšana, to īstenošanas tehnisko un finansiālo aspektu novērtējums: gala versija un pielikumi*), prepared by Ltd. "eBIOpowers" within the Energize Co2mmunity project, contracted by the Riga planning region, presented 26th October 2021 public workshop organized by the Ministry of Economics and Riga Planning Region.

[149] https://likumi.lv/ta/id/334084

In which areas do **you** identify key r**egulatory and administrative barriers** for RECs? Have national/regional governments recognized and addressed these barriers as well? Have they undertaken measures to remove those barriers (Art.22,4 RED II)?	The barriers for RECs identified in the COME RES project have been used as a background for the Amendments on Law on Energy (see Standal et al. 2022[150])
Are RECs subject to **fair, proportionate and transparent procedures,** including **registration and licensing procedures?** (Art.22,4 RED II) Where do you see shortcomings? Are there any procedures tailored specifically for RECs?	REC registration and licencing has not started, and it is not possible to evaluate this item. The Amendments on the Law on Energy require the fulfilment of these principles. However, no detailed criteria have been elaborated. These should be covered by the regulation of the *Cabinet of Ministers* to be adopted by 28. February 2023.
To what extent do the responsible authorities take measures providing that the **relevant DSOs cooperate with RECs** to facilitate energy transfers within RECs? (Art.22,4 RED II) Please, describe the scope of respective regulations.	The Electricity Market Law sets out the operating principles (obligations and rights) for all participants in the power system. The Electricity Market Law provides that the DSO in its respective licence operation area is responsible for the operation, maintenance and safety of the system, the management and development of the system, and for connection with other systems as well as for a sustainable ability of the system to ensure the transportation of electricity in correspondence with the expected demand.[151] Basically, all relations between grid service providers and final customers are defined by the *Cabinet of Ministers* Regulation No. 50.[152] In this turn, the Law on Regulators of Public Utilities provides that the *Public Utilities Commission* (the Regulator) supervises the compliance of public services with the conditions of the license, the terms of the general

[150] Standal et al. (2022): D2.3 Synthesis case studies of drivers and barriers, COME RES, https://come-res.eu/resource?uid=1300

[151] Note: there are 10 DSOs registered in Latvia. However, 9 DSO are the operators of the inner grid network of companies having no role in the development of energy communities (at least, in the start-up phase). Thus, only the SC “Sadales tīkli” plays a role in relation to electricity energy communities. SC “Sadales tīkli’ provides electricity distribution services to more than 800,000 customers and covers 99% of the country area.

[152] https://likumi.lv/doc.php?id=263945

	permit, certain quality requirements, technical regulations as well as the terms of contracts. Electricity energy communities use the transmission and distribution systems for electricity sharing according to the system services tariffs defined by the Electricity Market Law and the Law on Regulators of Public Utilities.[153] Electricity sharing is organized by the electricity energy community following agreements signed with the electricity trader.
Do RECs benefit from any preferential network charges or any other preferential treatment with regard to network charges/tariffs etc.?	Particular grid tariffs for the use of the power distribution grid for electricity sharing have not yet been elaborated. The issue of grid tariffs is envisaged to be dealt within the next approval (by the *Public Utilities Commission*) of the distribution grid tariffs methodology expected by 2023. The Amendments on the Electricity Market Law provide the principal option for differentiated tariffs. Namely, it has been stated that "the power distribution system services' tariffs might differentiate between the levels of voltage, power capacity, electricity consumption, electricity delivered to the distribution grid or the profiles of electricity customers". Thus, it opens potential space to elaborate differentiated tariffs for electricity sharing depending on used voltage and other parameters. The discussions within the Latvian COME RES country desk revealed that balanced, well substantiated, grid charges/tariffs, applied for REC, may serve as an important instrument supporting the operation of energy communities.
Have the national competent authorities developed a **transparent cost-benefit analysis** of distributed energy sources? Do, in your view, the relevant fees, **charges, levies and taxes** ensure that RECs contribute in an	Not developed yet. The issue is envisaged to be dealt with the next approval of the distribution tariff methodology in 2023.

[153] https://likumi.lv/ta/id/12483

adequate, fair and balanced way to the **overall cost sharing** of the system taking into account the costs and benefits RECs can provide to the energy system (Art.22,4 RED II)	
Are RECs subject to any **discriminatory treatment** with regard to their **activities, rights and obligations** as final customers, producers, suppliers, DSOs, or as other market participants? (Art.22,4 RED II)	The Amendments on the Law on Energy explicitly include the principle of avoiding discriminatory treatment. The Amendments on the Law on Energy state that the members/shareholders of an energy community retain all the rights and obligations of the final energy customer (end-user) and active customer. The *Cabinet of Ministers* shall adopt the detailed regulation regarding the relationships between the REC and other energy users, with the energy suppliers (merchants) and also the DSO. The Amendments on the Electricity Market Law state that state administration institutions, when planning the new policies and measures, ensure electricity energy communities' equal right to apply for participation in state aid schemes along other market participants. These Amendments also state that electricity sharing does not affect the rights and obligations of the parties involved as final customers, producers, traders or aggregators.
Is the participation in the RECs **accessible to all consumers**, including **low-income or vulnerable households?** (Art.22,4 RED II) Are there any **specific policy measures** to facilitate the participation of low-income and vulnerable groups?	REC development has not started yet and there is no real practice of involving vulnerable households to be evaluated. The on-going EU-funded (Horizon2020) project POWERPOOR[154] might provide valuable lessons regarding the involvement of vulnerable groups. From Latvia, the Zemgale region energy agency is involved in this project as a partner.

[154] POWER POOR: Empowering Energy Poor Citizens through Joint Energy Initiative, September 2020 – August 2023: https://cordis.europa.eu/project/id/890437

Are there any policy measures/tools available or planned **to facilitate access of RECs to finance**? (Art.22,4 RED II) (e.g. investment support, start-up financing, risk capital). Please, also consider cohesion funds and ESIF, national resilience and recovery fund. Please briefly describe.	The Amendments on the Law on Energy provide that: • the *Cabinet of Ministers* determines the rules for providing aid for commercial activities to be granted to energy communities and that • the *Ministry of Economics* elaborates the financial aid programs for RECs considering those rules. Latvia's EU Cohesion Policy Programme for 2021-2027[155] includes the measure No 2.1.4 to promote PV systems (including storage equipment for produced electricity). Beneficiaries of this programme are the commercial sector, municipal capital companies, cooperatives, energy communities and households. It is planned to establish a financial instrument, which will be administered by the state-owned development financing institution "ALTUM".[156] ERDF co-financing is planned in the amount of 20 million € in total for all groups of beneficiaries. However, the details of the program are not yet elaborated. It might be expected that at least several projects of RECs and jointly acting renewable electricity self-consumers will be co-financed from this program, serving as pilots. The authors are not aware of any other funding programmes providing investment aid for energy communities. Latvia's Plan of the Resilience and Recovery Facility does not deal with the energy communities.
Are there any measures/tools available/planned **to facilitate access to information**? Is there any **legal/technical support** or **institutional support**? Please briefly describe.	The Amendments to the Law on Energy state that the *Ministry of Economics*, in co-operation with the *Ministry of Environmental Protection and Regional Development*, shall elaborate and publish dedicated Guidelines for the Formation of Energy Communities, including recommendations for public persons (public authorities) regarding the provision of public support for energy communities and their participation in energy communities, by 30. June 2023.

[155] *Eiropas Savienības kohēzijas politikas programma 2021-2027.gadam,* approved by the Cabinet of Ministers 16th November 2021, re-casted 21th June 2022, see page 56 (the measure 2.1.4): https://esfondi.lv/planosana-1.
[156] https://www.altum.lv/en/

Is regulatory and capacity-building support provided **to public authorities** to enable and set up RECs, or to participate directly in RECs? (Art.22,4 RED II)	Planned, see above.
Are there any rules in place to secure the **equal and non-discriminatory treatment of consumers** that participate in the REC?	Included in the Amendments on the Law on Energy and in the Amendments to the Electricity Market Law. The members/shareholders of energy community retain all the rights and obligations of energy final customers and active customers assigned to them.
Are there any **national or regional objectives or targets for RECs** and **community energy** in general? (quantitative and/or qualitative)	There are no quantitative targets at the moment. The National Energy and Climate Plan NECP2030 deals with energy communities in a more general way. This issue was shortly addressed by *IPE* within COME RES Deliverable 2.3.[157] Stakeholders were asked about the potential impact of such targets. The responses indicated that the interviewed stakeholders expect a medium impact of such quantitative targets.
Are there any **dedicated support schemes for RECs/community energy** in general providing **operational support**?	Not provided for the time being.

3. Assessment of RES support scheme designs

What are the **key existing support schemes for renewable energy** in the field of electricity? (e.g., investment support via cohesion funds and ESIF, resilience and recovery funds; operational support via feed in premiums, competitive bidding/auctions etc.) Are	Neither feed-in premiums nor competitive bidding/auctions are currently applied for RES electricity producers in Latvia. There is no consistent support mechanism for RECs in Latvia for the time being. The Amendments on the Law on Energy envisage that the *Ministry of Economics* elaborates financial support programs for RECs considering the rules of providing aid for commercial activities.

[157] Standal et al. (2022): D2.3 Synthesis case studies of drivers and barriers, COME RES, https://come-res.eu/resource?uid=1300

there any modifications to existing support schemes/new support schemes planned in the future?	
To what extent do national and regional governments **take into account the specificities of RECs** when designing support schemes for RES-E? (e.g., special rules, preferential treatment)	As the Amendments on the Law on Energy provide for the elaboration of the support schemes for energy communities, their specificities will be considered in principle. No details for the particular support programs have been elaborated yet.
If **auctions** represent the key support scheme for RES-E in your country: have any of the following measures been implemented or are such measures planned? Please briefly describe.	Auctions do not represent the key support scheme for RES-E in Latvia.
*Exemptions for RECs from taking part in auctions/ Use of the **de minimis rule***	-
*Special **bidding windows/categories** for RECs within the auction system (e.g., like in Ireland)*	-
*Special REC related **pre-qualification criteria** all bidders have to fulfil in order to take part in the auctions (e.g., minimum number of shares offered to RECs/local communities, existence of a community engagement plan)*	-
***Multi-criteria assessment** for selection of successful bids (i.e., selection not only based on the offered price/remuneration level, but also on social criteria, e.g. community co-ownership etc.)*	-
*Special **pricing rules** for RECs (e.g. uniform pricing in Germany, bonus payments in France)*	-
Others	-

Are the existing/proposed measures under section 3 sufficient to effectively facilitate the development of RECs? What should be improved?	The existing support instruments are not enough to effectively facilitate the development of RECs. It is extremely necessary to elaborate and implement particular support instruments for different stages of REC development: (1) support programme for the preparation of administrative and technical documentation of a REC, (2) investment aid program for technical equipment and infrastructure, (3) RES-electricity purchasing support mechanism, e.g., auctions. The specific role of RECs within such actions has to be defined.
Which other accompanying support measures specifically targeting RECs do exist in your country (in addition to those mentioned above in sections 2 and 3; e.g., R&D programmes, regulatory sandboxes, others)?	There are none.

4. Novel and promising policy measures

Do you know of any **novel or promising policy measures** on a national/regional/local level **in your country** which may serve as a model for other countries/regions/municipalities in order to facilitate the development of RECs? If possible provide a short description.	No.
Do you know of any policy measures adopted **in other countries** which may serve as a **model for your country** in order to facilitate the development of RECs? If possible provide a short description.	The Italian good practice case “REC-1 Energy City Hall” has been chosen as the case of transfer to Latvia. Use of the finances provided by the national (Spain, Italy) Resilience and Recovery Plans for the REC development. Use of these sources depending on the development stage of particular REC (step-by-step

	approach for REC financial support from the initiation of REC up to co-financing of investments). Also, the development of interactions between the active residents, willing to join collective initiatives, and the municipality should be considered. Municipalities could act as enablers, making public space available for the installation of RES technologies, for instance, to install solar PV facilities on public building roofs. The Belgian good practice case *Zuidtrant* may serve as a good model of citizens-municipality cooperation, showing how to start from a first small scale PV project. The Energy Community Program of Ireland demonstrates a coherent policy approach.

5. Overall assessment

Where do you see the most **urgent gaps/needs for policy action**? Which elements of the enabling framework are of highest importance?	There are still some detailed legislative elements missing to ensure the operation of RECs which should be elaborated in the Regulations of the *Cabinet of Ministers* (most of these regulations shall be adopted by 28. February 2023). The survey of the Latvian respondents (carried out in the COME RES project in May-June 2022) has indicated the following barriers (more than 73% respondents considered the factors presented below as “highly important” or “important”): • Lack of awareness of REC as a concept/model, lack of national or local policy attention to REC as a concept and potential benefits these may have • Lack of networks and knowledge exchange among potential stakeholders • Lack of clear/adequate legislation concerning REC

	• Lack of economic incentives and financial support
Which actions should be taken at which level of government to put those priority elements into action?	• Adoption in due time of the governmental regulations detailing the provisions of the recently (July 2022) adopted Amendments both on the Law on Energy and on the Electricity Market Law. This adoption will provide the possibility to initiate further pilot projects. • Establishment of the investment co-financing programs for REC, preferably in line with a diversification of distribution system services' tariffs. • Providing diversity of REC support instruments (informative, economical, etc.).
Is there any strategic and coherent policy approach in promoting RECs noticeable? Do the different levels of government (national-regional-municipal) inhibit or reinforce each other when creating an enabling framework for RECs? How could coordination between the national and sub-national levels of government be improved?	There is no strategic and coherent policy approach in place yet.
In your view, does, the RED II cover all elements of an "enabling framework"? Are there any measures which are missing? Which additional measures do key stakeholders propose for your country?	Latvia's experience in transposing RED II shows that both technical issues and the issues related to the development of the electricity market are highly important for the successful implementation of the energy communities' concept and principles. Thus, the definition of clearer requirements related to the functioning of the electricity market or the functioning of the electricity system prior to the implementation of energy communities' concept would have facilitated the development of energy communities. High importance should have been placed on the IEMD Directive, not only on RED II. Clearer signals were needed on the necessary minimum system requirements in order to be

	able to implement these new concepts of energy communities and electricity sharing from a technical point of view in due time.

Country report: The Netherlands

Authors: Erik Laes, Kellan Anfinson (TU/e)

1. Introducing definitions, rights and duties of RECs; corporate governance

Note: Information in the table refers to the draft legislation ("Energiewet") which is currently submitted for a formal government review of the feasibility and enforceability.[158]

Have RECs and CECs been formally introduced in the national legal framework? Please, indicate the respective legal acts.	In the Netherlands, an overarching definition for 'energy community' (encompassing both RECs and CECs) is contained in a new draft Energy Law (replacing the current Electricity and Gas Law from 1998). This new Energy Law establishes the legal foundations for the energy transition in the Netherlands and incorporates important elements from the Dutch Climate Agreement (2019). For example, the 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. So far, energy communities had not yet been explicitly recognized as a specific legal entity active on the energy market, but this will change with the adoption of the new Energy Law, which is currently (15 July 2022) under revision by the *Council of State*. Art. 2.5 of the draft legislation merges both REC and CEC definitions into one single concept, called an 'energy community'. Criteria of the EU definition reflected in the Dutch definition of an 'energy community' are: • An energy community carries out activities in the energy market, meaning any activity is technically possible • Effective control by natural persons, local authorities or SMEs; and • Voluntary and open participation and exit

[158] The draft legislation can be found at Wetsvoorstel Energiewet (UHT) | Publicatie | Rijksoverheid.nl

	Under the overall definition, Renewable Energy Communities (RECs) are defined as energy communities that develop renewable energy projects (all technologies are covered, incl. biogas projects). In addition to the general stipulations applying to an energy community, RECs can • Include in their statutes the requirement that only natural persons, local authorities or SMEs can become shareholders • Effective control belongs to those shareholders located in the proximity of the renewable energy project. The exact meaning of key terms such as 'effective control', 'proximity' etc. will be the subject of further implementing acts.
How have the following items been transposed? Is the legal definition of RECs in compliance with the RED II? (Art. 2,16 RED II) In which fields do you see transposition gaps?	In general, the Dutch law can in many regards be seen as a 'copy-paste' of the EU directives. Not all of the governance principles from the EU directives have been included, but the draft contains an explanation/background note that acknowledges the need to address additional issues. The definition of an energy community leaves participation open to all legal persons, regardless of form. Effective control by citizens is not stipulated by law, not even in RECs. Furthermore, oversight on the compliance with the conditions for energy communities is currently not foreseen in the draft legislation. This could result in abuse. *REScoop.eu*'s transposition tracker therefore puts the Netherlands in the category of 'average progress'.[159]
Type of legal entity	In principle, any legal entity composed of members or shareholders (that does not have the production, storage or sale of energy as its main commercial activity) can be part of an 'energy community'. In addition to this general rule, RECs can stipulate in their statutes that only natural persons, local governments or SMEs can be members or shareholders of

[159] See Policy - REScoop

	a REC. Existing renewable energy cooperatives fall under the definition of a REC.
Open and voluntary participation	Voluntary and open participation is included in the conditions for energy communities.
Eligibility to participate/Membership	Any legal entity composed of members or shareholders can be part of an 'energy community. In addition to this general rule, RECs can stipulate in their statutes that only natural persons, local governments or SMEs can be members or shareholders of a REC.
Effective control	Effective control of energy communities is attributed to natural persons, local governments or SMEs. The exact form this will take in the statutes of an energy community will be the subject of further implementing acts.
Proximity	RECs can apply a proximity rule to their membership or shareholder requirements. The draft legislation does not give any further specifications as this will be the subject of further implementing acts.
Autonomy	The legislation contains no specific rules on autonomy, although the explanatory memorandum identifies the 'one-person-one-vote' rule for cooperatives and mentions potential for setting maximum shares by certain entities/groups of entities, or further distribution of voting rights.
Primary purpose	The primary purpose of energy communities is to provide economic, social or environmental benefits to its members/shareholders and/or to the community where the energy community is active.
Does the definition of RECs also cover the heating/cooling sector and renewable gases?	Yes. The legislation covers all renewable energy sources.
Are RECs legally entitled to **produce**, **consume**, **store** and **sell** renewable energy?	Yes. In the draft legislation RECs are introduced as a new market party, with the same rights and obligations as other market parties. They are treated on equal footing.

Are RECs legally entitled to **act as DSO**? Do you know of any practical examples in your country?	Yes, in principle RECs can act as a DSO, but in practice, none of the existing cooperatives are interested in acting as a DSO (private communication with representative of *Energie Samen*, the umbrella organization of cooperatives in the Netherlands) given that the cooperation with the DSOs is experienced as satisfactory.
Do the rights of RECs refer both to electricity and heating/cooling and RES based gases?	Yes. The rights of RECs refer to all renewable energy sources.
Is **collective consumption** as defined in Art. 21 REDII **within buildings/building blocks** (without using the grid) possible? Where do you see the main barriers for **jointly acting self-consumers**?	Yes, the draft legislation foresees a new category of a group of 'active end consumers'. A group of active end consumers can supply energy to their members without the need for an official recognition (permit) as an energy supplier, as long as the amount of energy supplied to the group members does not exceed the amount of energy produced by the collective installation.
Are RECs legally entitled **to share, within the REC, renewable energy** that is produced by the REC (using the grid)? Is there any **definition/regulatory framework for energy sharing** already in place?	Energy sharing is not possible under the current legislation but legislation has been drafted under which sharing of the renewable energy produced by a REC will become possible. In the draft legislation, energy sharing is considered to be a form of energy supply, and as such any collective form of energy sharing is regulated by the same rules applying to energy supply to end users by other market parties, with one exception: a group of active end consumers (including energy communities) can supply energy to their members without the need for an official license as an energy supplier (getting such a license is a considerable administrative burden), as long as the amount of energy supplied to the group members does not exceed the amount of energy produced by the collective installation.
How is energy sharing regulated/promoted (e.g., exemption of fees, charges etc.)?	Energy sharing is considered to be a form of energy supply, and as such in the new draft legislation any collective form of energy sharing is regulated by the same rules applying to energy supply to end users by

	other market parties. Energy sharing is not specifically promoted through the exemption of fees or charges.
Which **institutional body** is responsible for registering RECs/CECs? Briefly explain.	The draft legislation does not foresee an official register of energy communities (even though in their reaction to the draft legislation *Energie Samen*, the umbrella organization of energy cooperatives, insisted on such an official register being taken up in the law). Energy communities/ RECs will be registered in the general registry of energy providers, managed by the market authority *ACM*.
How many RECs (pursuant to RED II) have been officially registered in your country?	None, but there were 623 renewable energy cooperatives active in the Netherlands by the end of 2021, according to the 'local energy monitor'.[160] Almost all these cooperatives fit the definition of a REC.
How many CECS (pursuant to IEMD) have been officially registered in your country? (estimate)	No data available

2. Assessment of enabling frameworks

Which are the **key policy actors and public authorities responsible** for developing an enabling framework for RECs in your country? (e.g. national/regional ministries, national/regional public authorities, public/state agencies?)	On the national level, climate and energy policy is the responsibility of the *Ministry of Economic Affairs and Climate Policy*. This ministry is also responsible for drafting the new energy law. The main policy instrument in climate policy is the 2019 Climate Agreement.[161] It was the result of consensual decision making between hundreds of stakeholders representing government, local administrations, businesses, social partners, NGOs and civil society. The Dutch Climate Agreement stipulates the creation of 30 energy regions which together cover the entirety of the Dutch territory. Each energy region is obliged to work out a Regional

[160] See Lokale Energie Monitor 2020 | HIER opgewekt
[161] Climate Agreement | Report | Government.nl

	Energy Strategy. The Regional Energy Strategy offers a new instrument in which municipalities, provinces and water boards work together at the regional level and assess renewable electricity generation, the heat transition in the built environment as well as the related storage and infrastructure needed. They do this together with grid operators, businesses and civil society. The Regional Energy Strategy is established by the municipal councils, provincial states and the water boards' general administrative bodies. Elected representatives and day-to-day administrators are usually involved from the beginning of the Regional Energy Strategy process. However, the way in which this happens may vary from one region to the next.
Which are other key **actors** (non-public) promoting the development of RECs? (e.g., community energy associations, etc.)	• *Energie Samen*[162] is the federation of renewable energy cooperatives in the Netherlands that seeks to promote the cooperative ideal in the energy domain. They actively promote renewable energy communities through the *International Cooperative Alliance* principles. • The *Environmental Federation of Brabant* (*Brabantse Milieufederatie*[163]) is the environmental umbrella organization for the province of Noord-Brabant. The association advocates for a transition to 100% renewable energy and supports RES communities across Noord Brabant. The *Brabantse Milieufederatie* is also active in representing the RES communities in the development of the Regional Energy Strategies (Noord-Brabant counts four energy regions).
What have been **key driving forces** and **enablers of community energy** in your country so far? (before RED II was adopted)?	Key driving forces and enablers: • Renewable energy projects or technologies that avoid CO_2 emissions in general are subsidized through the SDE++ arrangement. This is a

[162] https://www.energiesamen.nu/
[163] https://www.brabantsemilieufederatie.nl/

	subsidy that applies to the exploitation phase of an installation for a fixed amount of years. The amount of subsidy is based on a 'non-profitable top up' calculation. • The Netherlands has a long historical cooperative tradition. People are familiar with the legal structure and the cooperative principles. By the end of 2021, some 623 energy cooperatives were active in the country. • The Dutch 'zip code catchment area' (PostCodeRoos) arrangement: This was an energy tax reduction scheme for natural persons living in a certain postal code area. By stipulating a well-defined area, this arrangement facilitated the recruitment of participants in local renewable energy communities because they were entitled to a refund of the energy tax. A condition was that these participants were connected to the network via a small-scale consumer connection (max. 3 x 8 Amps). The 'zip code catchment area' was determined by the place (zip code) where the electricity generation facility was located. This 4-digit area forms the heart of the rose. The entire Zip code catchment area is formed by the heart together with all adjacent 4-digit zip code areas (which form the petals of the rose). This arrangement ended in 2021 by the SCE subsidy (cf. *infra*). • Close cooperation with local governments that value citizen participation • Sharing knowledge and skills facilitated by the energy cooperative umbrella organization, *Energie Samen*.
Has the national or regional government(s) carried out any **assessment of the existing barriers and potential of development** of REC? (Art.22,3 REDII)? What are the **main findings and recommendations?** To what extent have these been considered by the government?	An official REC potential assessment has been carried out in 2019 by the consultancy *ASI-Search* by order of the *Dutch Ministry of Economic Affairs and Climate Policy*. It concludes that*: "We see that the ambitions for local ownership* [i.e. the national goal of 50% ownership by the local environment] *seem in principle feasible when looking at the growth opportunities in the number of cooperatives and financing of projects by*

	citizens. It's not wishful thinking. Citizen cooperatives can fill a significant part of this and are already putting in the effort. However, the options will differ by region and municipality. It does require a significant leap in scale and professionalization of the cooperative movement. It certainly will not go by itself: it is ambitious, challenging yet at the same time conceivable. It is of great importance that the cooperative movement is able to attract more people. Public research shows that many Dutch people are positive about local energy initiatives and that they are willing to join an energy collective. The trick is to capitalize on that latent support so that more people participate, for example with an investment in a local energy project or the purchase of locally generated electricity"
Do competent authorities at national, regional and local level include **provisions** for the **integration and deployment of renewable energy**, including for **RECs** in the field of **spatial planning**? Do competent authorities at national, regional and local level include **provisions** for the **integration and deployment of renewable energy**, including for **RECs** when designing, building and renovating **urban infrastructure**, industrial, commercial or residential areas and energy infrastructure? (Art.15,3 REDII)	In the 'national spatial planning vision' (nationale omgevingsvisie[164]) the following choice principles for renewable energy projects are listed, serving as a guidance for provincial and municipal authorities in their elaboration of legally binding spatial plans: • A preference for large-scale clustering of the production of renewable energy (by wind turbines, possibly in combination with solar fields), because this reduces the spatial impact and contributes to cost reduction. Provincial and municipal authorities have to consider these guidelines when making up their detailed spatial plan. However, there is an explicit need to weigh up the advantages against other values, such as landscape characteristics, national safety, nature, cultural heritage, water and soil, as well as social and administrative support. The precondition is that residents are truly involved, have an influence on the use of the area and, where possible, share in the profits. It is also important to pay attention to nature-inclusive design and management

[164] Nationale Omgevingsvisie (NOVI) - De Nationale Omgevingsvisie

	in sustainable energy projects in order to avoid, as far as possible, the disruption or deterioration of nature and biodiversity. • A preference for solar panels on roofs and facades of buildings. New buildings have to comply with a certain energy performance level to which solar panels can contribute. The introduction of solar panels at these locations will usually have less influence on the characteristics or identity of an area. Based on the same reasoning, unused sites in built-up areas are then preferred. In order to meet the regional energy targets, it may turn out that locations in rural areas are also needed. In that case, preference is given to seeking smart combinations of functions. Although nature and agricultural areas are not entirely excluded, preference is given to land with a different primary function other than agriculture or nature, such as water treatment plants, landfills, inland waterways or land managed by the state, including, where possible, verges of railroads and freeways.
In which areas do you identify key r**egulatory and administrative barriers** for RECs? Have national/regional governments recognized and addressed these barriers as well? Have they undertaken measures to remove those barriers (Art.22,4 RED II)?	*Energie Samen* sees a big potential in smart energy sharing within RECs to establish RECs as a reliable local long-term partner for DSOs for managing grid congestion. According to *Energie Samen*, RECs that help with congestion management should be offered priority access to the grid. They also advocate in favour of making such smart energy sharing projects eligible under the SDE++ subsidy, and offering incentives for participating in such projects through a reduction of the VAT. Next to this, especially for small RECs the administrative and financial hurdles for developing a feasible business case can be quite large. Most cooperatives in the Netherlands work on single projects, based on volunteers and without start-up capital. As such, they are not able to spread the risk of project failure as professional project developers are able to do. Some provinces have therefore taking the initiative to support these

	project-based cooperatives by providing access to funds for project development and risk capital.
Are RECs subject to **fair, proportionate and transparent procedures,** including **registration and licensing procedures?** (Art.22,4 RED II) Where do you see shortcomings? Are there any procedures tailored specifically for RECs?	No separate registration for RECs is foreseen; RECs will be registered as a market party (similar to any other market party) by the *ACM* (the competent authority for the energy market). According to *Energie Samen*, this creates a risk that there will not be sufficient control on the entities that label themselves as 'energy communities'. Specific subsidies such as the SCE relate to the fact that renewable energy is being developed. As such, only RECs will profit from this scheme.
To what extent do the responsible authorities take measures providing that the **relevant DSOs cooperate with RECs** to facilitate energy transfers within RECs? (Art.22,4 RED II) Please, describe the scope of respective regulations.	The Dutch DSOs will be legally required to carry out the transactions required for energy sharing and selling. The DSO will register the different forms of energy exchange, check certain participation conditions, e.g., whether a digital meter is available on a quarter-hourly basis and report the purchased, injected and shared energy volumes to energy suppliers.
Do RECs benefit from any preferential network charges or any other preferential treatment with regard to network charges/tariffs etc.?	No.
Have the national competent authorities developed a **transparent cost-benefit analysis** of distributed energy sources? Do, in your view, the relevant fees, **charges, levies and taxes** ensure that RECs contribute in an **adequate, fair and balanced way** to the **overall cost sharing** of the system taking into account the costs and benefits RECs can provide to the energy system (Art.22,4 RED II)	No.
Are RECs subject to any **discriminatory treatment** with regard to their **activities, rights and obligations** as final	No. The draft legislation defines energy communities as new players on the energy market, which are subject to the same rules and requirements

customers, producers, suppliers, DSOs, or as other market participants? (Art.22,4 RED II)	as other market players. The only exception is that RECs do not need a supply license when they share energy amongst their constituents.
Is the participation in the RECs **accessible to all consumers**, including **low-income or vulnerable households?** (Art.22,4 RED II) Are there any **specific policy measures** to facilitate the participation of low-income and vulnerable groups?	Yes, participation is open to all consumers as stipulated in the draft legislation. No specific policy measures are implemented by the key actors responsible for the implementation of the enabling framework. Some of the existing renewable energy cooperatives have taken specific measures to facilitate the participation of low-income and vulnerable consumers (e.g. low entry costs).
Are there any policy measures/tools available or planned **to facilitate access of RECs to finance**? (Art.22,4 RED II) (e.g., investment support, start-up financing, risk capital). Please, also consider cohesion funds and ESIF, national resilience and recovery fund. Please briefly describe.	Together with the *Ministry of Economic Affairs*, *InvestNL* and the Green Fund, *Energie Samen* has set up the Development Fund for energy cooperatives ('Ontwikkelfonds voor energiecoöperaties'). The National Green Fund provides loans from the Development Fund to *Energie Samen* as fund manager. The business office of *Energie Samen* does the implementation of the fund management in cooperation with regional umbrella organizations and project offices. When financial closure for the project is achieved, the cooperative pays back the money made available with a premium. In this way, the Development Fund ultimately sustains itself. Renewable energy cooperatives and associations can borrow money from the Development Fund for: • staff support (project supervisor) from a member project office • 'out-of-pocket costs' for specialist research or other necessary steps to arrive at a fundable business case and an irrevocable permit for the project. Currently, the provinces of South Holland, Utrecht, Limburg and Drenthe contribute to the fund and energy cooperatives from these provinces can apply for funding. In each of these regions, a regional coordinator is appointed by the fund manager (*Energie Samen*). Whenever an

	application to the fund is received, the fund's business office will, in consultation with the regional coordinators: • establish contact with the local energy cooperative applying for a loan, • handle funding requests, • assess the viability of the applicant's organisation and plans, • propose to the National Green Fund that loans be granted to applicants from the Development Fund, according to predefined frameworks and conditions.
Are there any measures/tools available/planned **to facilitate access to information**? Is there any **legal/technical support** or **institutional support**? Please briefly describe.	No specific measures for RECs are available/planned. Information and support are provided mainly by *Energie Samen* and its regional offices.
Is regulatory and capacity-building support provided **to public authorities** to enable and set up RECs, or to participate directly in RECs? (Art.22,4 RED II)	No.
Are there any rules in place to secure the **equal and non-discriminatory treatment of consumers** that participate in the REC?	Yes. The draft legislation foresees that primary energy suppliers cannot act in a discriminatory way towards their clients that wish to become a member of a REC.
Are there any **national or regional objectives or targets for RECs** and **community energy** in general? (quantitative and/or qualitative)	The Dutch Climate Agreement sets out the goal of 50% local ownership of renewable energy on land by 2030. However, what 'local' means is not defined exactly. The 50% local ownership objective expresses a non-binding policy intention.
Are there any **dedicated support schemes for RECs/community energy** in general providing **operational support**?	There is a specific operational subsidy (or feed-in premium) for renewable energy communities called the 'Cooperative Energy Generation' (SCE) subsidy. This scheme replaced the reduced rate tax provision

	(postcoderoorsregeling). The subsidy is targeted specifically at energy cooperatives and associations of co-owners. It is paid out in form of an amount of money per kWh produced. Eligible technologies are wind power (15-1000 kW), PV (15-500 kW_p) and hydropower (15-150 kW). Furthermore, all participants in the cooperative have to live within the 'zip code catchment area' of the renewable power installation (cf. the 'Postcoderoos' arrangement). Each year a basic amount is set for each type of installation. The basic amount is the amount per kWh produced, which is necessary to make the installation profitable. The basic amount for the year in which a cooperative applies for the subsidy is valid for the entire subsidy period of 15 years, so there is long-term certainty about the return on investment. • The subsidy per kWh received is the difference between the basic amount and the correction amount. • The correction amount is the market price for energy. If the energy price rises, the cooperative will receive less subsidy and if the energy price falls, the cooperative will receive a higher subsidy. The basic energy price is the lower limit of the corrective amount. • The energy produced must have been certified by CertiQ (Guarantees of Origin) in order to be eligible for the subsidy. The total available SCE subsidy for 2020 is 150 million €. Subsidies are attributed on a 'first-come, first-serve' basis.

3. Assessment of RES support scheme[165] designs

What are the **key existing support schemes for renewable energy** in the field of electricity? (e.g., investment support via cohesion funds and ESIF, resilience and recovery funds; operational support via feed in premiums, competitive bidding/auctions etc.) Are there any modifications to existing support schemes/new support schemes planned in the future?	On a national level the two major support schemes for renewable electricity are: • A tax incentive that consists of a return of paid VAT for solar panels for natural persons. • The SDE++ subsidy scheme: The SDE++ provides subsidies for the use of techniques for the generation of renewable energy and other CO_2-reducing techniques. This subsidy is intended for companies and organisations (non-profit and otherwise) in sectors such as industry, mobility, electricity, agriculture and the built environment. If an SDE++ subsidy is granted, it is awarded over a period of 12 or 15 years. The duration of the subsidy depends on the deployed technology. • Next to this, a net metering scheme is in place for small consumers (i.e. consumers connected to the network via a small-scale consumer connection of max. 3 x 8 Amps). This scheme will be ended by 2023.
To what extent do national and regional governments **take into account the specificities of RECs** when designing support schemes for RES-E? (e.g., special rules, preferential treatment)	There is a specific operational subsidy for renewable energy communities called the 'Cooperative Energy Generation' (SCE) subsidy (cf. *supra*)
If **auctions** represent the key support scheme for RES-E in your country: have any of the following measures been implemented or are such measures planned? Please briefly describe.	-

[165] In accordance with Art.2 of RED II **support scheme** means 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.

*Exemptions for RECs from taking part in auctions/ Use of the **de minimis rule**[166]*	-
*Special **bidding windows/categories** for RECs within the auction system (e.g., like in Ireland)*	-
*Special REC related **pre-qualification criteria** all bidders have to fulfil in order to take part in the auctions (e.g., minimum number of shares offered to RECs/local communities, existence of a community engagement plan)*	-
***Multi-criteria assessment** for selection of successful bids (i.e., selection not only based on the offered price/remuneration level, but also on social criteria, e.g., community co-ownership etc.)*	-
*Special **pricing rules** for RECs (e.g., uniform pricing in Germany, bonus payments in France)*	-
Others	
Are the existing/proposed measures under section 3 sufficient to effectively facilitate the development of RECs? What should be improved?	*Energie Samen* proposes to also offer financial and regulatory incentives to RECs that implement smart energy sharing. According to *Energie Samen*, RECs that help with congestion management should be offered priority access to the grid. They also advocate in favour of making such smart energy sharing projects eligible under the SDE++ subsidy, and

[166] The new **Climate, Energy and Environmental State Aid Guidelines (CEEAG) (https://ec.europa.eu/competition-policy/sectors/energy-and-environment/legislation_en)** provide additional flexibility for RECs, allowing Member States to exempt REC projects and SME-owned projects below 6 Megawatts (MW) of installed capacity from the competitive bidding requirement. RECs and small and micro enterprises may also develop wind projects up to 18 MW without competitive bidding. More generally, where competitive bidding does apply, the CEEAG enable Member States to design tenders in a way which enhances the participation of energy communities, for example by lowering pre-qualification requirements.

	offering incentives for participating in such projects through a reduction of the VAT.
Which other accompanying support measures specifically targeting RECs do exist in your country (in addition to those mentioned above in sections 2 and 3; e.g., R&D programmes, regulatory sandboxes, others)?	Some innovative energy communities participate in research projects and get support from e.g., the Dutch fund for scientific research (NWO), INTERREG (EU), Horizon2020 (EU), etc.

4. Novel and promising policy measures

Do you know of any **novel or promising policy measures** on a national/regional/local level **in your country** which may serve as a model for other countries/regions/municipalities in order to facilitate the development of RECs? If possible provide a short description.	The cooperative energy generation subsidy (SCE). The development fund for energy cooperatives.
Do you know of any policy measures adopted **in other countries** which may serve as a **model for your country** in order to facilitate the development of RECs? If possible provide a short description.	Flanders seems to be a frontrunner in implementing energy sharing, which is a topic of great interest for the Dutch energy cooperatives (cf. *Energie Samen* position paper[167]).

5. Overall assessment

Where do you see the most **urgent gaps/needs for policy action**? Which elements of the enabling framework are of highest importance?	During the 2nd 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:

[167] https://energiesamen.blob.core.windows.net/media/Whitepaper%20Slim%20Energiedelen%20-%20Energie%20Samen.pdf

	• As far as **cooperation with the distribution network operator** is concerned, many areas of the distribution network in North Brabant (COME RES target region) are facing a 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 being developed by *ACM* (the Dutch market authority) are moving in 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. • In terms of **support and capacity building for local governments**, many municipalities (especially the smaller ones) do not yet have a clear picture of the added value of working with energy communities to achieve local climate goals. Differences in strategic vision also play a role. The municipalities in the region of Hart van Brabant, for example, are mainly interested in achieving the goal of the objective of '50% ownership of the local environment' by investing in energy projects themselves (without the help of energy communities). • In terms of **access to funding and information** for energy communities, a positive aspect is that the province of North Brabant holds a fund of approximately 2 billion euros created by the sale of *Essent NV*. This money will be invested by the province in future-proof solutions. It is up to the energy communities to challenge the fund managers and prove that they can work out such future-proof projects. However, a problem for energy communities remains, that they must first invest in feasibility studies before they can apply for support from this fund. For small communities working on a voluntary basis, it is difficult to get this money.
Which actions should be taken at which level of government to put those priority elements into action?	With regard to grid access, new grid connection codes need to be developed by the *ACM* (competent market authority).

	With regard to support for capacity building and funding, a solution could be to provide a loan for necessary studies and risk capital, which would later be repaid if the project proves successful (cf. *supra*, 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.
Is there any strategic and coherent policy approach in promoting RECs noticeable? Do the different levels of government (national-regional-municipal) inhibit or reinforce each other when creating an enabling framework for RECs? How could coordination between the national and sub-national levels of government be improved?	The enabling framework for RECs is mainly developed at the level of the RES regions with no coordination between the regions. The approach that is followed for implementing the enabling framework can vary from region to region and is therefore not very transparent. The national level does not consider itself to be responsible for elaborating an enabling framework for RECs/ energy communities beyond setting the general framework conditions for energy communities to participate as market actors on equal footing with the 'traditional' energy market actors. This is in line with the polycentric system of governance put in place in the Netherlands to implement the 2019 Climate Agreement, whereby the Netherlands was subdivided in 30 energy regions which each are responsible for developing a regional energy transition approach. Participation of/ collaboration with local actors such as energy communities is considered to be part of this regional approach.
In your view, does, the RED II cover all elements of an "enabling framework"? Are there any measures which are missing? Which additional measures do key stakeholders propose for your country?	See the response to the first question (feedback from stakeholders of North-Brabant on priorities for the enabling framework).

Country report: Norway

Author: Karina Standal (CICERO)

1. Introducing definitions, rights and duties of RECs; corporate governance

Have RECs and CECs been formally introduced in the national legal framework? Please, indicate the respective legal acts.	Neither RECs nor CECs have been formally introduced in the national legal framework to date. Since Norway is not a member of the EU, but only the European Economic Area (EEA), EU directives do not automatically apply to Norway, but rather depend on individual procedures and negotiations between the EU and the EEA/European Free Trade Association (EFTA). The recast Renewable Energy Directive (2018/2001/EU) (RED II) and the Integrated Electricity Market Directive (2019/944/EU) (IEMD) are still under review by the EEA/EFTA.
How have the following items been transposed? Is the legal definition of RECs in compliance with the RED II? (Art. 2,16 RED II) In which fields do you see transposition gaps?	None of the listed items have been transposed to date. See comment above.
Type of legal entity	N/A
Open and voluntary participation	N/A
Eligibility to participate/Membership	N/A
Effective control	N/A
Proximity	N/A
Autonomy	N/A
Primary purpose	N/A

Does the definition of RECs also cover the heating/cooling sector and renewable gases?	N/A
Are RECs legally entitled to **produce**, **consume**, **store** and **sell** renewable energy?	RECs have not been defined yet. Final customers are entitled to become energy producers through the 'plus-customer' scheme. In current legislation[168] a 'plus customer' is defined as an end user that consumes and produces energy 'behind the meter, from which the power put into the grid does not exceed 100 kW at any time'. A 'plus-customer' may consume self-produced electricity free of charge and is exempt from grid tariffs concerning electricity production and consumption. The 'plus customer' can also sell excess production to an electricity supplier without a trading license. The 'plus customer' is responsible for complying with all technical requirements of the installation (often arranged through certified third-party companies), while the DSO is obliged to provide information on needed technical requirements and to facilitate the feed-in of electricity. It is also possible to be a prosumer from which the power put into the grid ranges between 100 kW and 1 GWh. Such prosumers are subject to pay regular tariff and a tariff for feeding in electricity. A prosumer may not have electricity production or sales behind the meter' services that require a licence. As today's regulations inhibit sharing of self-produced electricity between properties/entities with separate meters the scheme is only available to detached or semi-detached households or commercial or government facilities with one meter. New regulations are signalled to come in 2022 allowing sharing of electricity between household/entities with separate meters within the same property.[169] The new regulations will ensure equal treatment of citizens residing in single family homes and those residing in apartments. The proposed regulations were submitted by

[168] Government of Norway (GoN) (1999) Forskrift om kontroll av nettvirksomhet. FOR-1999-03-11-302. Available (in Norwegian) at: https://lovdata.no/dokument/SF/forskrift/1999-03-11-302

[169] https://www.nve.no/media/12625/forslag-til-forskriftsendring-deling-av-produksjon-3666137_1_1.pdf (in Norwegian).

	the *Norwegian Energy Regulatory Authority* (*NVE-RME*) to the *Ministry of Petroleum and Energy* on 2. August 2021 and is now sent for hearing. It is not currently known when the regulatory framework for sharing will be in place.
Are RECs legally entitled to **act as DSO**? Do you know of any practical examples in your country?	RECs and their entitlements as actors in the energy market have not been legally defined. DSOs in Norway operate under a regulated monopoly designed to ensure a cost efficient and rational electricity supply. New regulations signalled in 2022 will only allow for sharing of electricity between separate meters within the same property.[170]
Do the rights of RECs refer both to electricity and heating/cooling and RES based gases?	RECs and their entitlements as actors in the energy market have not been defined. As DSOs operate under regulated monopoly, decentralised energy systems for electricity generation are subject to more regulations than heating/cooling and RES based gases.
Is **collective consumption** as defined in Art. 21 RED II **within buildings/building blocks** (without using the grid) possible? Where do you see the main barriers for **jointly acting self-consumers**?	Collective consumption as defined in Article 21 in RED II is not possible under existing legislation. Citizens living in housing companies or housing cooperatives may engage in joint electricity production and prosuming, but the produced electricity cannot be shared between household units as the distribution is under regulated monopoly of DSOs. Proposed new regulations[171] entail that electricity production within the same property can be distributed to all housing units within that property without paying grid tariffs and electricity tax when the electricity is sent between household connection points (NVE 2021). The new regulations will ensure equal treatment of citizens residing in single family homes and those residing in apartments.

[170] Standal, K. and Feenstra, M. (2022) Engaging the Public for Citizen Energy Production in Norway: Energy Narratives and Opportunities and Barriers for an Inclusive Energy Transition, in Karimi, Farid and Rodi, Michael (eds.) Energy transition in the Baltic Sea region: Understanding stakeholder engagement and community acceptance. Routledge.
[171] https://www.nve.no/media/12625/forslag-til-forskriftsendring-deling-av-produksjon-3666137_1_1.pdf (in Norwegian).

Are RECs legally entitled **to share, within the REC, renewable energy** that is produced by the REC (using the grid)? Is there any **definition/regulatory framework for energy sharing** already in place?	RECs and their entitlements as actors in the energy market have not been defined. Prosuming is regulated under the above mentioned 'plus-customer' scheme. The proposed new regulations[172] allow for electricity sharing between units with separate meters (e.g., households or companies) within the same property. According to the proposition, the upper limit should be extended to 500 kW installed capacity or 500 kW shared electricity within the same property. Energy sharing is defined as 'a producer with an installed capacity less than 500 kW within the property' that 'distributes its production to connection points within the same property'. The proposed regulations were submitted by the *Norwegian Energy Regulatory Authority* (*NVE-RME*) to the *Ministry of Petroleum and Energy* on 2. August 2021. It is not currently known when the regulatory framework for sharing will be in place.
How is energy sharing regulated/promoted (e.g., exemption of fees, charges etc.)?	According to the proposed regulations, energy sharing will be promoted through exemption of grid charges and electricity fees concerning self-produced electricity.
Which **institutional body** is responsible for registering RECs/CECs? Briefly explain.	Not yet determined. RED II and IEMD are still under review by EEA/EFTA.
How many RECs (pursuant to RED II) have been officially registered in your country?	None.
How many CECS (pursuant to IEMD) have been officially registered in your country? (estimate)	None.

[172] https://www.nve.no/media/12625/forslag-til-forskriftsendring-deling-av-produksjon-3666137_1_1.pdf (in Norwegian).

2. Assessment of enabling frameworks

Which are the **key policy actors and public authorities responsible** for developing an enabling framework for RECs in your country? (e.g., national/regional ministries, national/regional public authorities, public/state agencies?)	RED II and RECs have not been formally introduced in the national legal framework to date. In general, the *Norwegian Water Resources and Energy Directorate* (*NVE*), a directorate under the *Ministry of Petroleum and Energy*, is responsible for the management of Norway's water and energy resources. Their mandate includes ensuring integrated and environmentally sound management of the country's water systems, promote efficient energy markets and cost-effective energy systems, and contribute to efficient energy use. *NVE* also bear the overall responsibility for maintaining national power supplies.
Which are other key **actors** (non-public) promoting the development of RECs? (e.g., community energy associations, etc.)	RECs and their entitlements as actors in the energy market have not been defined in Norway and the concept has been given little public or policy attention. Examples of actors that have been active in promoting grassroot RES community energy in Norway: *Norwegian Housing Companies' Country Association* (*Norges Boligbyggelags Landsforbund NBBL*) is a politically independent interest organisation that aims to bring together housing associations in Norway and work for their common interests. *NBBL* work to influence the authorities to pursue an active and sustainable housing and building policy that ensures all members the right to a good housing and a good living environment. *NBBL* have been instrumental in advocating for the new regulations that extend the plus customer scheme mentioned above. The *Solar Energy Cluster association*, a national member-based organisation promoting market potential and innovation in Norway's solar energy sector. The associations' partners constitute both private and

	commercial interests, research institutions, public sector and NGOs. The *Solar Energy Cluster* has a wide network and significant influence on development of regulations and policies. The *Solar Energy Cluster* does not specifically promote RECs, but their focus on PV as a growing sector in Norway includes promoting new energy systems such as RECs and RES community energy as proposed in the new regulations extending the above mentioned plus-customer scheme. In addition, a few more actors promote decentralised energy systems in Norway. The environmental NGO *Zero*, whose main mission is to contribute towards making Norway a low-carbon society. Through their network, *Zero* disseminates knowledge on low-carbon policies and instruments. *Zero* particularly fronts the ban of fossil electricity production, CO_2 tax on fossil energy, and development of electricity connections between Norway and other countries. These issues are relevant in promoting RES in Norway generally, in addition *Zero* promotes decentralized RES based energy models as a mean to avoid expensive grid developments in the future. Lastly, *Energy Norway* is a non-profit industry organisation representing about 300 companies involved in the production, distribution, and trading of renewable electricity in Norway. They do not specifically promote RES community energy or RECs but work to ensure that benefits and responsibilities are distributed evenly for those that produce energy (both private and commercial production).

What have been **key driving forces** and **enablers of community energy** in your country so far? (before RED II was adopted)?	Findings from COME RES Deliverable 2.3[173] suggest that the main interest for RES community energy among citizens, municipalities and small and medium enterprises in Norway is to take an active role in the green shift and to fulfil climate and sustainability commitments in local governance (especially for municipalities). These drivers are combined with reducing energy costs. An important enabling factor is the presence of a local leader or collaboration with actors that have the necessary competence and motivation to establish such initiatives.
Has the national or regional government(s) carried out any **assessment of the existing barriers and potential of development** of REC? (Art.22,3 REDII)? What are the **main findings and recommendations?** To what extent have these been considered by the government?	No, RED II and RECs have not been formally introduced in the national legal framework to date.
Do competent authorities at national, regional and local level include **provisions** for the **integration and deployment of renewable energy**, including for **RECs** in the field of **spatial planning**? Do competent authorities at national, regional and local level include **provisions** for the **integration and deployment of renewable energy**, including for **RECs** when designing, building and renovating **urban infrastructure**, industrial, commercial or residential areas and energy infrastructure? (Art.15,3 REDII)	No, RED II and RECs have not been formally introduced in the national legal framework to date. RECs are not included in national or regional level spatial planning. Some municipalities have included decentralised energy systems in their spatial planning based on their needs and priorities. These systems do not necessarily correspond to the provision of RECs. About 80% of the energy use in buildings is for heating during the cold season. PV does not solve this. In general, there are not many incentives for energy production in buildings other than attracting tenants and buyers, given experience that zero-emission buildings are attractive in the market. Network capacity and load reduction is a secondary priority, if it is considered at all.[174] The current regulation and fluid electricity prices mean that it is very difficult to make a reliable cost-benefit analysis.

[173] See Standal K. et al. (2022) Assessment report on technical, legal, institutional and policy conditions

[174] Aabakken C. (2019) Descriptive study of Local Energy Communities. NVE Commissioned Report 1/19.

In which areas do you identify key r**egulatory and administrative barriers** for RECs? Have national/regional governments recognized and addressed these barriers as well? Have they undertaken measures to remove those barriers (Art.22,4 RED II)?	Findings from COME RES Deliverable 2.3[175] suggest that the regulations that inhibit actors to share electricity and the 100 kWh-limit in the 'plus customer' scheme are considered the main barriers among potential REC members/shareholders. However, taken the Norwegian context, the opinion on whether this is a justified barrier differs greatly among stakeholders.[176] With regard to the opportunity to produce, share and sell electricity within the same property, these barriers are addressed in the proposed new regulations.[177]
Are RECs subject to **fair, proportionate and transparent procedures,** including **registration and licensing procedures?** (Art.22,4 RED II) Where do you see shortcomings? Are there any procedures tailored specifically for RECs?	Since RED II is still under review, there are no specific procedures (including licencing and registration) for RECs.
To what extent do the responsible authorities take measures providing that the **relevant DSOs cooperate with RECs** to facilitate energy transfers within RECs? (Art.22,4 RED II) Please, describe the scope of respective regulations.	RED II and RECs have not been formally introduced in the national legal framework to date. The current prosumer regulations have ensured that DSOs facilitate prosumers rights. The new pending regulations will expand the prosumer scheme.
Do RECs benefit from any preferential network charges or any other preferential treatment with regard to network charges/tariffs etc.?	RED II and RECs have not been formally introduced in the national legal framework to date.

[175] See Assessment report on technical, legal, institutional and policy conditions

[176] Standal, K. and Feenstra, M. (2022) Engaging the Public for Citizen Energy Production in Norway: Energy Narratives and Opportunities and Barriers for an Inclusive Energy Transition, in Karimi, Farid and Rodi, Michael (eds.) Energy transition in the Baltic Sea region: Understanding stakeholder engagement and community acceptance. Routledge.

[177] https://www.nve.no/media/12625/forslag-til-forskriftsendring-deling-av-produksjon-3666137_1_1.pdf (in Norwegian).

Have the national competent authorities developed a **transparent cost-benefit analysis** of distributed energy sources? Do, in your view, the relevant fees, **charges, levies and taxes** ensure that RECs contribute in an **adequate, fair and balanced way** to the **overall cost sharing** of the system taking into account the costs and benefits RECs can provide to the energy system (Art.22,4 RED II)	N/A
Are RECs subject to any **discriminatory treatment** with regard to their **activities, rights and obligations** as final customers, producers, suppliers, DSOs, or as other market participants? (Art.22,4 RED II)	RED II and RECs have not been formally introduced in the national legal framework to date.
Is the participation in the RECs **accessible to all consumers**, including **low-income or vulnerable households?** (Art.22,4 RED II) Are there any **specific policy measures** to facilitate the participation of low-income and vulnerable groups?	RED II and RECs have not been formally introduced in the national legal framework to date. The new pending regulations will enable housing companies and housing cooperatives to be included in the 'plus customer' scheme. This will allow for a more diverse socio-economic group to establish local energy production. However, the decision to become energy producers in housing companies and housing cooperatives are taken through management or general assembly.[178] Households who are unwilling do not have the option to be excluded. There are no specific policy measures in place to facilitate the participation of low-income and vulnerable groups.

[178] Each housing cooperative must conduct a yearly general assembly and all cases discussed must be provided in the invitation. Decisions in the general assembly are based on simple majority, but some housing cooperatives may (through general assembly) make statutes for qualified majority. But not all decisions have to go through the general assembly. The board hast the mandate to make decisions concerning maintenance and repairs. It is important to note that residents in housing cooperatives own their apartment/share. This means that they are not renting. The housing cooperative has the de facto private ownership and the resident a right to use it.

Are there any policy measures/tools available or planned **to facilitate access of RECs to finance**? (Art.22,4 RED II) (e.g., investment support, start-up financing, risk capital). Please, also consider cohesion funds and ESIF, national resilience and recovery fund. Please briefly describe.	RED II and RECS have not been formally introduced in the national legal framework to date. We have no information per now indicating policy measures to enable financial support specifically targeting RECs.
Are there any measures/tools available/planned **to facilitate access to information**? Is there any **legal/technical support** or **institutional support**? Please briefly describe.	RED II and RECS have not been formally introduced in the national legal framework to date. We have no information per now indicating policy measures to enable information or support specifically targeting RECs.
Is regulatory and capacity-building support provided **to public authorities** to enable and set up RECs, or to participate directly in RECs? (Art.22,4 RED II)	RED II and RECS have not been formally introduced in the national legal framework to date.
Are there any rules in place to secure the **equal and non-discriminatory treatment of consumers** that participate in the REC?	RED II and RECS have not been formally introduced in the national legal framework to date.
Are there any **national or regional objectives or targets for RECs** and **community energy** in general? (quantitative and/or qualitative)	RED II and RECS have not been formally introduced in the national legal framework to date. There are no national targets for RECs and RES community energy.
Are there any **dedicated support schemes for RECs/community energy** in general providing **operational support**?	RED II and RECS have not been formally introduced in the national legal framework to date.

3. Assessment of RES support scheme[179] designs

[179] In accordance with Art.2 of RED II **support scheme** means 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

What are the **key existing support schemes for renewable energy** in the field of electricity? (e.g., investment support via cohesion funds and ESIF, resilience and recovery funds; operational support via feed in premiums, competitive bidding/auctions etc.) Are there any modifications to existing support schemes/new support schemes planned in the future?	Existing regulations for household prosumers, the 'plus customer scheme', allow participants to use self-consumed electricity free of charge (exemptions from grid tariffs and taxes on the electricity produced), and to sell excess production to an electricity supplier. The revised regulations[180], designed to strengthen the rights of housing cooperatives and self-consumers, are pending approval. The proposal allows electricity sharing between units within the same building, limited to 500 kW. This means that electricity production (e.g., rooftop PV) can be distributed to individual units without being subject to grid tariffs and electricity tax. On a national level, the state-owned enterprise *Enova SF* provides economic support for innovation and technology development for households and businesses. Individual household prosuming is guaranteed support with a refund of part of their investment costs (up to 4,750 Euro).[181] *Enova* does not operate with support for the category RES community energy, but private entities can apply for support alongside commercial actors. Since February 2022, *Enova* also provides funding to housing companies and housing cooperatives to cover expenses associated with mapping and identifying appropriate energy related measures, including local energy production (up to 15,000-52,500, depending on the number of units and the mapping expenses). Further details will be published shortly.[182] Some municipalities have their own short-term support schemes, but information is not as easily accessible and standardized as *Enova's*. Norway has had a green certificate/electricity certificates scheme in cooperation with Sweden since 2012, designed to increase renewable-electricity production

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.

[180] https://www.nve.no/media/12625/forslag-til-forskriftsendring-deling-av-produksjon-3666137_1_1.pdf (In Norwegian).

[181] https://www.enova.no/privat/alle-energitiltak/solenergi/solcelleanlegg/ (In Norwegian).

[182] https://www.enova.no/bedrift/bygg-og-eiendom/kartleggingsstotte-til-borettslag-og-boligsameier/ (in Norwegian).

	capacity. RES electricity producers that were approved for support were awarded certificates for their production for up to 15 years. Producers have the right to sell one certificate per MWh delivered to the electricity grid. Sellers of electricity to end consumers must buy a fraction of a certificate, often referred to as a quota, for each MWh of electricity they sell. Prosumers were eligible for green certificates since 2016, but participation fees were too expensive for small-scale producers and therefore not a success (see COME RES Deliverable 2.1[183]). Power plants had to be operational by 31.12.2021 to be eligible (Norway decided to discontinue the scheme by 31.12.2021).
To what extent do national and regional governments **take into account the specificities of RECs** when designing support schemes for RES-E? (e.g., special rules, preferential treatment)	Existing support schemes have not been designed with RECs in mind.
If **auctions** represent the key support scheme for RES-E in your country: have any of the following measures been implemented or are such measures planned? Please briefly describe.	N/A
*Exemptions for RECs from taking part in auctions/ Use of the **de minimis rule**[184]*	N/A
*Special **bidding windows/categories** for RECs within the auction system (e.g., like in Ireland)*	N/A

[183] Standal K., Aakre S. (2021): Assessment Report on Technical, Legal, Institutional and Policy Conditions, COME RES Deliverable 2.1, https://come-res.eu/fileadmin/user_upload/Resources/Deliverables/COME_RES_D2.1__Assessment_report_FINAL.pdf

[184] The new **Climate, Energy and Environmental State Aid Guidelines (CEEAG) (https://ec.europa.eu/competition-policy/sectors/energy-and-environment/legislation_en)** provide additional flexibility for RECs, allowing Member States to exempt REC projects and SME-owned projects below 6 Megawatts (MW) of installed capacity from the competitive bidding requirement. RECs and small and micro enterprises may also develop wind projects up to 18 MW without competitive bidding. More generally, where competitive bidding does apply, the CEEAG enable Member States to design tenders in a way which enhances the participation of energy communities, for example by lowering pre-qualification requirements.

*Special REC related **pre-qualification criteria** all bidders have to fulfil in order to take part in the auctions (e.g., minimum number of shares offered to RECs/local communities, existence of a community engagement plan)*	N/A
***Multi-criteria assessment** for selection of successful bids (i.e., selection not only based on the offered price/remuneration level, but also on social criteria, e.g., community co-ownership etc.)*	N/A
*Special **pricing rules** for RECs (e.g., uniform pricing in Germany, bonus payments in France)*	N/A
Others	N/A
Are the existing/proposed measures under section 3 sufficient to effectively facilitate the development of RECs? What should be improved?	RED II and RECs have not been formally introduced in the national legal framework to date. The proposed regulations to extend the 'plus customer scheme'[185] will facilitate joint electricity production and consumption (within the same property). Existing support schemes have not been designed with RECs in mind, and do not consider the specificities of RECs. The government, through *Enova*, provides investment support for household or commercial prosumers. Some municipalities may have their own support schemes. *Enova* does not support RECs or RES community energy initiatives, but private entities can apply for support alongside commercial actors. This is an important impediment for their development since such an application requires a level of professionalism not open to all private initiatives. Further, the projects must guarantee that they will be implemented regardless of

[185] https://www.nve.no/media/12625/forslag-til-forskriftsendring-deling-av-produksjon-3666137_1_1.pdf (in Norwegian).

	whether they receive *Enova* support, which induces a high burden of responsibility on non-commercial actors.
Which other accompanying support measures specifically targeting RECs do exist in your country (in addition to those mentioned above in sections 2 and 3; e.g., R&D programmes, regulatory sandboxes, others)?	The provisions of RED II and RECs have not been formally introduced in the national legal framework to date. However, there are opportunities for pilot projects under regulatory sandbox subject to the regulator's approval (*NVE*). There is also a multitude of R&D programs that support RES decentralised energy systems. However, this is most relevant for professional actors and collaborations that include DSOs, corporations and local governance actors.

4. Novel and promising policy measures

Do you know of any **novel or promising policy measures** on a national/regional/local level **in your country** which may serve as a model for other countries/regions/municipalities in order to facilitate the development of RECs? If possible provide a short description.	No.
Do you know of any policy measures adopted **in other countries** which may serve as a **model for your country** in order to facilitate the development of RECs? If possible provide a short description.	No.

5. Overall assessment

Where do you see the most **urgent gaps/needs for policy action**? Which elements of the enabling framework are of highest importance?	The transposition and implementation of RED II and enabling frameworks in general is needed. Further, attention to vulnerable households and implications

	for energy poverty is lacking in Norway[186] so this element needs particular focus to enable a just and inclusive energy transition. Findings presented in COME RES Deliverable 2.3[187] suggest that the regulatory framework represents the main barrier and not the financing aspects. Energy poverty and high electricity costs have been addressed through living support for the most vulnerable households. From January until April 2022, all households have received 'electricity support' due to unprecedented high electricity costs. The electricity support is calculated by the average electricity price in the various price zones in Norway. The support is provided for the average electricity price above 0,7 NOK per kWh. The support is given up to a consumption of 5,000 kWh and provided to homeowners, but not to holiday homes.
Which actions should be taken at which level of government to put those priority elements into action?	These actions need to be prioritised within the *Ministry for Oil and Energy* as a basis for *NVE* to propose relevant measures. To enable a more inclusive focus collaboration between several ministries is needed.
Is there any strategic and coherent policy approach in promoting RECs noticeable? Do the different levels of government (national-regional-municipal) inhibit or reinforce each other when creating an enabling framework for RECs? How could coordination between the national and sub-national levels of government be improved?	No.
In your view, does, the RED II cover all elements of an "enabling framework"? Are there any measures which are missing? Which additional measures do key stakeholders propose for your country?	No information provided.

[186] Bredvold, T. L. (2020), Where no one is poor, and energy is abundant: A study of energy poverty in Norwegian households. MA dissertation, University of Oslo. Retrieved from https://www.duo.uio.no/bitstream/handle/10852/80221/1/masters-thesis-Torjus-Lunder-Bredvold.pdf

[187] See footnote above.

Country report: Poland

Author: Anna Dyląg, KAPE

1. Introducing definitions, rights and duties of RECs; corporate governance

Have RECs and CECs been formally introduced in the national legal framework? Please, indicate the respective legal acts.	RECs and CECs have not been transposed yet in Polish legislation. Before RED II and IEMD came into force, legal definitions of 'energy clusters' and 'energy cooperatives' existed. To transpose the two European directives, two pieces of legislation have been drafted by the Polish government. (1) A draft amending the 'Act on Renewable Energy Sources and Certain Other Acts' (UC99[188]) aimed at (at least partly) transposing RED II. The proposed UC99 transposes only several provisions of RED II. It also includes an adjustment of the already existing definition of 'energy clusters', but this cannot be regarded as a sufficient transposition of RECs as defined in RED II. Energy clusters do not represent a legal entity, but a civil law agreement and only very few elements of the REC definition have been addressed. For a proper transposition of the definition of RECs it would be quite obvious to take the existing concept of 'energy cooperatives' as a basis, but the proposed legislation (UC99) does neither explicitly mention RECs nor energy cooperatives. Public consultation on this draft legislation started on 25. February 2022 and lasted 21 days. The draft is currently being reviewed. (2) For citizen energy communities (CECs) defined by the IEMD, legislation has been drafted as well (see UC74, draft on amendments to the 'Energy Law and the Law on Renewable Energy Sources'[189]) Public consultation

[188] The Polish title is *"Projekt ustawy o zmianie ustawy o odnawialnych źródłach energii oraz niektórych innych ustaw",* see also https://www.gov.pl/web/premier/projekt-ustawy-o-zmianie-ustawy-o-odnawialnych-zrodlach-energii-oraz-niektorych-innych-ustaw7

[189] The Polish title is "Projekt ustawy o zmianie ustawy – Prawo energetyczne oraz ustawy o odnawialnych źródłach energii"; see https://www.gov.pl/web/premier/projekt-ustawy-o-zmianie-ustawy-prawo-energetyczne-oraz-ustawy-o-odnawialnych-zrodlach-energii3

	took place in June 2021, but no progress on the bill has been made since then. Energy cooperatives have been legally defined and operate according to the Renewable Energy Sources Act (RES Act). However, respective national regulations for energy cooperatives are not compliant with the provisions of RED II for RECs. The RES Act narrows the definition and scope of operation of potential energy cooperatives in Poland. First of all, an energy co-operative can produce electricity (as well as biogas or heat) only for the need of the cooperative and its members. Thus, Polish energy cooperatives are not allowed to sell electricity, as envisaged in the RED II. They are also not allowed to store energy, but only to transfer its surplus to the distribution grid. Exemplary usage is lighting of common parts of a building. In addition, the RES Act imposes additional restrictions on energy cooperatives. Under Polish law, they can only be created in rural areas or in urban-rural municipalities. But energy cooperatives might unfold their potential particularly in large cities where there are blocks of flats. There is a capacity limit of 10 MW and there is a requirement that 70% of the demand of the cooperative and its members must be covered by the RES installation(s). As a consequence of these and other barriers, there has been low interest among the population in creating energy cooperatives. By 31. May 2022, only two energy cooperatives had been registered[190].
How have the following items been transposed? Is the legal definition of RECs in compliance with the RED II? (Art. 2,16 RED II) In which fields do you see transposition gaps?	
Type of legal entity	For an energy cooperative the respective legal form is either a cooperative or an agricultural cooperative.

[190] See https://www.kowr.gov.pl/uploads/pliki/DI/Sp%C3%B3ldzielnie%20enrgetyczne/Wykaz%20sp%C3%B3%C5%82dzielni%20energetycznych/4.%20Wykaz%20sp%C3%B3%C5%82dzielni%20energetycznych_SPE%20NASZA%20ENERGIA_31.05.2022.pdf

	Existing 'energy clusters' are based on a civil law agreement. The draft legislation UC99 transposes certain provisions of RED II including a revised definition of 'energy clusters'. These have been defined as *"agreement the subject of which is cooperation in the field of generation, storage and demand balancing, distribution or trading of electricity or heat or fuels (…) the party to which is at least one local government unit and the purpose of which is to provide economic, social or environmental benefits to the parties to the agreement or to increase the flexibility of the electricity system."* Although the proposed legislation UC99 adjusts the existing concept of 'energy clusters', this cannot be regarded as a sufficient transposition of RECs as required by RED II. 'Energy clusters' do not represent a legal entity, but a civil law agreement. Pursuant to Article 11u(1) of UC74, a CEC may operate in the form of: • an association, except for an ordinary association, • a cooperative, • a partnership, except for a partnership, or • a limited liability company.
Open and voluntary participation	According to existing legislation, participation in an energy cooperative is open and voluntary. However, the maximum number of members is 1,000. Natural persons, legal persons, or local government units may become members of a cooperative if they meet the requirements specified in the statutes. The proposed legislation (UC 99) which includes an adjustment of the definition of energy clusters does not explicitly rule that participation in such is open and voluntary.
Eligibility to participate/Membership	A natural person, a legal person, a local government unit may become a member of an energy cooperative if they meet the requirements specified in the statutes. The maximum number of members in an energy cooperative is 1,000. Proposed legislation on CECs (UC74) envisages that

	only natural persons, legal persons and local government units can become members.
Effective control	There is no explicit regulation on effective control of energy cooperatives in the existing RES Act. Cooperatives are subject to the provisions of the Cooperative Law. According to the Cooperative Law there is the principle of 'one vote per cooperative member' regardless of the financial contribution. Proposed legislation on CECs (UC74) does not explicitly address effective control. The charter or agreement of a civic energy community shall ensure that decision-making and control powers are vested in the members, shareholders or partners of a civic energy community who are exclusively a household electricity consumer, a local government unit, a micro-entrepreneur or a small entrepreneur for whom the business of electricity trading, generation and distribution is not the object of the main business activity. Decision-making and control powers in CEC: (1) directly or indirectly exercising decisive influence or rights with respect to the civic energy community; (2) appointment of members of the supervisory board, board of directors or other bodies authorized to represent the civic energy community; (3) serving as a member of the supervisory board, board of directors or other bodies authorized to represent the civic energy community. Proposed legislation on 'energy clusters' (UC99) does not explicitly address effective control.
Proximity	Pursuant to Article 38e of the RES Act, an energy cooperative "*operates on the territory of a rural or urban-rural municipality within the meaning of the provisions on public statistics or on the territory of no more than three such municipalities in immediate neighbourhood*".

	Further, pursuant to Article 38c of the RES Act, an energy cooperative shall operate in the area of a single operator of an electricity distribution system or of a gas or district heating distribution network which supplies electricity, biogas or heat to generators and consumers who are members of that cooperative and whose installations are connected to the network of the operator concerned or to the district heating network concerned.[191] Referring to the proposed definition of CECs, there is a geographical proximity requirement for CECs, although geographical proximity is not a requirement for CECs, meaning that the definition is overly restrictive.[192] Provision from UC74: (1) A civic energy community shall operate in the area of operation of a single electricity distribution system operator supplying electricity to customers who are members, shareholders or associates of the community, whose installations are connected to the network of the given operator. (2) The area of operation of a civic energy community shall be determined on the basis of the places of connection of consumers who are members, shareholders or associates of this community to the electricity distribution network with a rated voltage not higher than 110 kV. (3) The activities of a citizen energy community may not include interconnections with other countries.
Autonomy	So far, autonomy is neither specified for energy cooperatives under existing law nor for CECs or energy clusters under the proposed legislation. According to the Law on Cooperatives there is the principle of 'one vote per cooperative member' regardless of the financial contribution.
Primary purpose	Pursuant to Art.2, 33a of the RES Act, the objective of a cooperative's activity is the production of electricity, biogas or heat, in RES installations and balancing the demand for electricity, biogas or heat, exclusively for the own needs of the energy cooperative and its members.

[191] Renewable Energy Sources Act. Journal of Laws 2022.1378 act in force. Version from 11 August 2022 to 15 October 2022. See https://sip.lex.pl/akty-prawne/dzu-dziennik-ustaw/odnawialne-zrodla-energii-18182244/art-38-c

[192] https://www.rescoop.eu/policy/poland-rec-cec-definitions

	The explanatory memorandum of the draft bill regulating CECs indicates that the introduction of a legal framework for the operation of CECs is aimed at ensuring affordable electricity for their members, as opposed to traditional energy companies, whose main purpose is to seek profit. There are no further specifications. The draft legislation UC99 transposing certain provisions of RED II includes a revised definition of 'energy clusters'. These have been defined as *"agreement the subject of which is cooperation in the field of generation, storage and demand balancing, distribution or trading of electricity or heat or fuels (…) the party to which is at least one local government unit and the purpose of which is to provide economic, social or environmental benefits to the parties to the agreement or to increase the flexibility of the electricity system."*
Does the definition of RECs also cover the heating/cooling sector and renewable gases?	The existing definition of energy cooperatives does also cover heating and cooling as well as renewable gases (biogas). CECs as defined in Polish draft legislation (UC74) are limited to the electricity sector (in line with IEMD). UC99 includes a revised definition of 'energy clusters'. These have been defined as *"an agreement the subject of which is cooperation in the field of generation, storage and demand balancing, distribution or trading of electricity or heat or fuels (…) the party to which is at least one local government unit and the purpose of which is to provide economic, social or environmental benefits to the parties to the agreement or to increase the flexibility of the electricity system"*.
Are RECs legally entitled to **produce**, **consume**, **store** and **sell** renewable energy?	The existing definition of an 'energy cooperative' refers only to the production of electricity, biogas or heat. According to UC74, the scope of activities of CECs includes generation, distribution, trading, aggregation, storage of electricity, implementation of projects aimed at improvement of energy efficiency and provision of electric vehicle charging services to its

	members, in a distribution network with rated voltage not higher than 110 kV. UC99 defines an energy cluster as *"an agreement aimed at cooperation in the field of generation, storage and demand balancing, distribution or trade of electricity or heat or fuels, (…) to which at least one local government unit is a party and which aims to provide economic, social or environmental benefits to the parties to the agreement or to increase the flexibility of the power system."*
Are RECs legally entitled to **act as DSO**? Do you know of any practical examples in your country?	Current legislation for 'energy cooperatives' does not allow operation of electricity distribution grids. According to draft legislation for CECs, the scope of activities of CECs includes the distribution of electricity. According to the draft legislation for 'energy clusters' (UC99), the scope of activities includes the distribution of electricity.
Do the rights of RECs refer both to electricity and heating/cooling and RES based gases?	Yes, 'energy cooperatives', CECs, and 'energy clusters' are entitled to generate electricity as well as biogas.
Is **collective consumption** as defined in Art. 21 REDII **within buildings/building blocks** (without using the grid) possible? Where do you see the main barriers for **jointly acting self-consumers**?	Yes, collective prosumers were introduced into national legislation by an amendment to the RES Act, which came into force on 1. April 2022. The main barrier may be the new prosumer billing system, which will also cover collective prosumers.[193] The main barrier to the development of prosumership in Poland (in all its forms) is the poor technical condition of distribution and transmission networks.
Are RECs legally entitled **to share, within the REC, renewable energy** that is produced by the REC (using the grid)? Is there any **definition/regulatory framework for energy sharing** already in place? How is energy	Energy cooperatives as defined in current legislation are not entitled to share energy pursuant to Article 22 (2b) RED II. Energy cooperatives in Poland can only use the energy generated for the needs of the cooperative. In the proposed legislation for CECs a citizen energy community is defined as "*a legal entity, based on voluntary and open participation, with the goal*

[193] From 1 April 2022, net-billing for solar PV came into force. This means that new prosumers, i.e., people who started using solar PV after 31 March 2022, will sell surplus energy to the grid and pay for the energy they take. Unfortunately, the rates in both transactions will be different. For the energy produced, new prosumers will be billed by amount at the average wholesale market price of the previous month, from mid-2024 it will be the average hourly price with possible negative rates.

sharing regulated/promoted (e.g. exemption of fees, charges etc.)?	*of providing environmental, economic or social benefits to its members, shareholders or associates or the local areas in which it operates, which may deal:* *(a) with respect to electricity: with generation, including from renewable sources, or distribution, or trading, or aggregation, or storage, or* *(b) implementation of projects to improve energy efficiency, as referred to in the Law of May 20, 2016 on energy efficiency, or* *(c) provision of electric vehicle charging services, as referred to in the Act of January 11, 2018 on electromobility and alternative fuels (Journal of Laws of 2021, item 110), or* *(d) provision of other services, including system services or services of flexibility, or* *(e) consuming electricity (…) with the use of their generating capacity and with the use of equipment, installations or networks located in the area of its operation."* The proposed legislation UC99 transposing some of the provisions of RED II and adjusting the definition of 'energy clusters' provides for the possibility of peer-to-peer energy trading for prosumers: *"Partnership trading of energy from renewable energy sources - the sale of energy from renewable energy sources between market participants, of which the generator of this energy is a renewable energy prosumer or a collective renewable energy prosumer, on the basis of an agreement specifying, in particular, the terms and conditions for the automated execution of the transaction and payment for it either directly between these market participants or through a third-party market participant."* However, the legislation does not include any provisions on energy sharing among the members of an 'energy cluster', or a CEC.
How is energy sharing regulated/promoted (e.g., exemption of fees, charges etc.)?	No regulation or promotion is in place or envisaged.

Which **institutional body** is responsible for registering RECs/CECs? Briefly explain.	Energy cooperatives are registered by the National Support Centre for Agriculture (KOWR). It is planned that CECs will be subject to compulsory registration. The draft legislation provides that the registry will be kept in electronic form by the President of the regulatory body URE. Also, energy clusters will be registered by the President of URE.
How many RECs (pursuant to RED II) have been officially registered in your country?	RECs have not been formally transposed into Polish legislation and therefore no RECs have been registered so far. By end of May 2022, two 'energy cooperatives' had been registered.
How many CECS (pursuant to IEMD) have been officially registered in your country? (estimate)	0

2. Assessment of enabling frameworks

Which are the **key policy actors and public authorities responsible** for developing an enabling framework for RECs in your country? (e.g., national/regional ministries, national/regional public authorities, public/state agencies?)	Energy cooperatives (current legislation): *Ministry of Climate and Environment*, *National Support Centre for Agriculture* (*KOWR*) Energy clusters (current legislation): *Ministry of Climate and Environment*
Which are other key **actors** (non-public) promoting the development of RECs? (e.g., community energy associations, etc.)	None
What have been **key driving forces** and **enablers of community energy** in your country so far? (before RED II was adopted)?	The key driving forces for community energy so far have been the motivation to increase the share of RES, energy security rationales and cost savings.
Has the national or regional government(s) carried out any **assessment of the existing barriers and potential**	In 2021, the *Supreme Chamber of Control* (*NIK*) examined existing barriers for RES development in general. These include limited possibilities for

of development of REC? (Art.22,3 REDII)? What are the **main findings and recommendations?** To what extent have these been considered by the government?	entrepreneurs to finance investments, lack of financial and legal support, administrative barriers, as well as technical problems with the functioning of transmission and distribution networks. There is no cyclical and consistent system for monitoring the RES electricity generation sub-sector and its barriers to development. There are infrastructural constraints in the area of PV due to the insufficient electricity grid. In the area of small hydropower, complicated and expensive preparation process and high investment outlays apply. In the area of offshore wind power, work on the 'Spatial Development Plan for Polish Maritime Areas' has not been finalized. In the area of geothermal energy there are no support instruments dedicated directly to these installations. Delays in the issuance of executive acts accompanying the RES Act also represent a major barrier.
Do competent authorities at national, regional and local level include **provisions** for the **integration and deployment of renewable energy**, including for **RECs** in the field of **spatial planning**? Do competent authorities at national, regional and local level include **provisions** for the **integration and deployment of renewable energy**, including for **RECs** when designing, building and renovating **urban infrastructure**, industrial, commercial or residential areas and energy infrastructure? (Art.15,3 REDII)	The amendments to the RES Act, adopted in October 2021, envisage an exemption from the need to include RES installations with a capacity of up to 0.5 MW in the study of conditions and directions for spatial development and in local spatial development plans (a limit of 0.1 MW previously applied). For PV plants built on class five and six land, as well as on degraded land, this threshold has been raised to 1 MW. Furthermore, an exemption was provided for all rooftop PV plants regardless of their capacity. In the beginning of 2022, the *Ministry of Development and Technology* launched a pre-consultation on draft amendments to the 'Law on Spatial Planning and Development'. The government document assumes that the location of larger PV installations will only be possible on the basis of a local master plan (MPZP). In the MPZP, solar and wind power plants will be allowed by default in open zones such as forest areas, agricultural areas, water areas and natural green areas.

	Hence, there are some provisions for RES in spatial planning, but not specifically for RECs.
In which areas do you identify key r**egulatory and administrative barriers** for RECs? Have national/regional governments recognized and addressed these barriers as well? Have they undertaken measures to remove those barriers (Art.22,4 RED II)?	Proper transposition of RED II provisions for RECs into national law is still missing. There are no legal actions directly changing the regulations concerning energy cooperatives in order to adjust national regulations to RED II, so it is difficult to remove barriers, although they have been indicated many times. There have been legislative initiatives taken by the *Senate of the Republic of Poland* – the upper parliamentary chamber - which primarily sought to abolish some of the restrictive requirements energy cooperatives must meet, but the proposed amendments were rejected by the Government[194]. However, some achievements have been made, such as the planned establishment of CECs (see the respective draft legislation UC74 aiming to introduce CECs, aggregators, etc., but presently stuck in the *Ministry of the Environment* after public consultations) and the draft legislation (UC99) transposing RED II provisions including an amended definition of energy clusters. Furthermore, regulations for collective self-consumption have been recently established and are in force since April 2022.
Are RECs subject to **fair, proportionate and transparent procedures,** including **registration and licensing procedures?** (Art.22,4 RED II) Where do you see shortcomings? Are there any procedures tailored specifically for RECs?	See previous question.
To what extent do the responsible authorities take measures providing that the **relevant DSOs cooperate with RECs** to facilitate energy transfers within RECs?	According to existing legislation, an energy cooperative shall operate in the area of one DSO, supplying electricity to members of that cooperative who are connected to the network of said operator.

[194] The Senate proposed to abolish the requirement to operate in the area of a rural or urban-rural municipality or in the area of no more than three municipalities directly adjacent to each other. Further, the Senate aimed to remove the size limit of 1,000 cooperative members and the requirement that the total installed capacity of all RES installations owned by a cooperative should enable the cooperative to cover no less than 70 per cent of its own and its members' needs. See also https://www.portalsamorzadowy.pl/prawo-i-finanse/w-senacie-bez-poprawek-do-projektu-o-spoldzielniach-energetycznych,299720.html

(Art.22,4 RED II) Please, describe the scope of respective regulations.	Furthermore, the DSO with whom the energy cooperative intends to cooperate shall be obliged to immediately: (1) conclude a contract with the energy cooperative for the provision of distribution services which, in particular, shall define the rules for: a) the provision of distribution services to the energy cooperative and its members, b) the designation and provision of measurement data; (2) conclude a contract for the provision of distribution services with the seller selected by the energy cooperative or amend the contract concluded in order to enable the seller to make settlements with the energy cooperative (Art. 38c RES Act).
Do RECs benefit from any preferential network charges or any other preferential treatment with regard to network charges/tariffs etc.?	The energy seller settles with the energy cooperative the amount of electricity injected into the electricity distribution grid against the amount of electricity taken from the grid for own consumption by the energy cooperative and its members at a ratio of 1 to 0.6. The energy cooperative shall not pay the following from the quantity of electricity settled: 1) charges for its settlement; 2) charges for the distribution service, the amount of which depends on the amount of electricity taken by all generators and consumers of the energy cooperative.
Have the national competent authorities developed a **transparent cost-benefit analysis** of distributed energy sources? Do, in your view, the relevant fees, **charges, levies and taxes** ensure that RECs contribute in an **adequate, fair and balanced way** to the **overall cost sharing** of the system taking into account the costs and benefits RECs can provide to the energy system (Art.22,4 RED II)	The author is not aware of such an analysis.
Are RECs subject to any **discriminatory treatment** with regard to their **activities, rights and obligations** as final	'Energy cooperatives' are limited to rural and rural-urban municipalities.

customers, producers, suppliers, DSOs, or as other market participants? Art.22,4 RED II)	
Is the participation in the RECs **accessible to all consumers**, including **low-income or vulnerable households?** (Art.22,4 RED II) Are there any **specific policy measures** to facilitate the participation of low-income and vulnerable groups?	'Energy cooperatives' are limited to rural and rural-urban municipalities, there are no specific measures dedicated to low-income and vulnerable groups.
Are there any policy measures/tools available or planned **to facilitate access of RECs to finance**? (Art.22,4 RED II) (e.g., investment support, start-up financing, risk capital). Please, also consider cohesion funds and ESIF, national resilience and recovery fund. Please briefly describe.	Within the framework of the National Recovery and Resilience Plan, support is envisaged for RES installations developed by energy clusters and energy cooperatives (97 million €). It is proposed to provide pre-investment, horizontal and investment support dedicated to energy cooperatives, energy clusters and local governments that would like to create energy communities. Pre-investment support will consist of co-financing the development of strategic and investment documents and organizational activities related to the creation of formalized structures of energy communities (e.g. creation and registration of 'energy clusters', 'energy cooperatives' and other forms of collective self-consumption possible to use on the basis of current legal conditions) as well as costs of creating a position and employment of a municipal energy officer during the project implementation in case of local governments. Horizontal support will include the organisation of cyclical study visits for representatives of 'energy clusters' and 'energy cooperatives', the creation of an information point for potential applicants and entities interested in the development of energy communities, information meetings and thematic workshops for potential applicants and beneficiaries and the development of information materials, e.g. good practice manuals, and ongoing evaluation of the implementation process of the pre-investment and investment component, aimed in particular at identifying barriers, constraints and risks related to the development of energy communities,
Are there any measures/tools available/planned **to facilitate access to information**? Is there any **legal/technical support** or **institutional support**? Please briefly describe.	

	formulation of recommendations and undertaking preventive measures). Investment support will include co-financing of biomass installations and biogas plants, the development or implementation of systems supporting the planning or management of community energy and energy, the reconstruction of local distribution networks and activities related to communication, information and promotion of the projects' effects in the area of local generation.
Is regulatory and capacity-building support provided **to public authorities** to enable and set up RECs, or to participate directly in RECs? (Art.22,4 RED II)	No.
Are there any rules in place to secure the **equal and non-discriminatory treatment of consumers** that participate in the REC?	No.
Are there any **national or regional objectives or targets for RECs** and **community energy** in general? (quantitative and/or qualitative)	According to the policy document 'Energy Policy of Poland until 2040' (2021) and the 'Strategy for Responsible Development until 2020 (with an Outlook until 2030)' (2017), the aim is to establish 300 energy communities (e.g., 'energy clusters', 'energy cooperatives') by 2030.[195]
Are there any **dedicated support schemes for RECs/community energy** in general providing **operational support**?	No.

[195] The "Energy Policy until 2040 (EPP 2040)" adopted in February 2021 stipulates "Distributed energy generation based on RES energy production, sale, storage or participation in DSR programmes by individual entities (e.g. active consumers, prosumers of renewable energy and others) and energy communities (e.g. energy clusters, energy cooperatives) will also develop. By 2030, the number of prosumers is expected to increase by about 5 times and the number of sustainable energy areas at local level is expected to increase to 300." See https://www.gov.pl/web/climate/energy-policy-of-poland-until-2040-epp2040.

3. Assessment of RES support scheme[196] designs

What are the **key existing support schemes for renewable energy** in the field of electricity? (e.g., investment support via cohesion funds and ESIF, resilience and recovery funds; operational support via feed in premiums, competitive bidding/auctions etc.) Are there any modifications to existing support schemes/new support schemes planned in the future?	The key existing support schemes in this field are RES auctions. Industrial-size installations (above 0.5 MW) that have won an auction, sell the produced electricity on the electricity market at the market price, to a chosen buyer, after which they may apply for additional payments to reach their auction price. This is done by way of an application to cover the negative balance.[197] The support to date (2016-2021) was at the level of PLN 40 billion.
To what extent do national and regional governments **take into account the specificities of RECs** when designing support schemes for RES-E? (e.g., special rules, preferential treatment)	It is planned to support energy communities within the National Recovery and Resilience Plan funds (see above).
If **auctions** represent the key support scheme for RES-E in your country: have any of the following measures been implemented or are such measures planned? Please briefly describe.	
*Exemptions for RECs from taking part in auctions/ Use of the **de minimis rule**[198]*	No.

[196] In accordance with Art.2 of RED II **support scheme** means 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.

[197] For more information see http://psew.pl/en/wp-content/uploads/sites/2/2021/05/Quick-guide-to-the-2021-Polish-auction-system-for-renewables.pdf.

[198] The new Climate, Energy and Environmental State Aid Guidelines (CEEAG) (https://ec.europa.eu/competition-policy/sectors/energy-and-environment/legislation_en) provide additional flexibility for RECs, allowing Member States to exempt REC projects and SME-owned projects below 6 Megawatts (MW) of installed capacity from the competitive bidding requirement. RECs and small and micro enterprises may also develop wind projects up to 18 MW without competitive bidding. More generally, where competitive bidding does apply, the CEEAG enable Member States to design tenders in a way which enhances the participation of energy communities, for example by lowering pre-qualification requirements.

*Special **bidding windows/categories** for RECs within the auction system (e.g., like in Ireland)*	No.
*Special REC related **pre-qualification criteria** all bidders have to fulfil in order to take part in the auctions (e.g., minimum number of shares offered to RECs/local communities, existence of a community engagement plan)*	No.
***Multi-criteria assessment** for selection of successful bids (i.e., selection not only based on the offered price/remuneration level, but also on social criteria, e.g., community co-ownership etc.)*	No.
*Special **pricing rules** for RECs (e.g., uniform pricing in Germany, bonus payments in France)*	No.
Others	
Are the existing/proposed measures under section 3 sufficient to effectively facilitate the development of RECs? What should be improved?	They are not sufficient to effectively facilitate the development of REC. Further measures should be developed.
Which other accompanying support measures specifically targeting RECs do exist in your country (in addition to those mentioned above in sections 2 and 3; e.g. R&D programmes, regulatory sandboxes, others)?	None.

4. Novel and promising policy measures

Do you know of any **novel or promising policy measures** on a national/regional/local level **in your country** which may serve as a model for other	No.

countries/regions/municipalities in order to facilitate the development of RECs? If possible provide a short description.	
Do you know of any policy measures adopted **in other countries** which may serve as a **model for your country** in order to facilitate the development of RECs? If possible provide a short description.	No.

5. Overall assessment

Where do you see the most **urgent gaps/needs for policy action**? Which elements of the enabling framework are of highest importance?	Poland needs full transposition and implementation of the RED II and the IEMD with regard to energy communities and creation of effective support mechanisms. Energy communities in the sense of those directives do not exist yet in Poland, which is why it is necessary to create enabling regulations and effective support mechanisms, and above all, profitable business models. This also requires urgent investments in the modernization and development of transmission and distribution networks. Without this, there will be increasing problems with connecting new RES. Also, greater transparency in the activities of DSOs is necessary (access to information on the technical condition of the network, etc.). What is needed now is effective promotion of energy communities and collective prosumership as vehicles to increase energy security and reduce electricity bills. 'Energy cooperatives'/collective self-consumption could be a way for households at risk of energy poverty (this would be better than coal subsidies).[199]

[199] Direct support for mining during 1990–2016 has been estimated at PLN 81 billion, indirect support at PLN 230 billion. See https://wise-europa.eu/wp-content/uploads/2017/09/UKRYTY-RACHUNEK-raport-internet.pdf

Which actions should be taken at which level of government to put those priority elements into action?	Full and meaningful transposition of the RED II and the IEMD as well as the creation of effective support mechanisms are the most important actions. Municipal authorities show great interest in forming energy communities. The main barriers are the lack of funds to build RES power plants that will serve as an energy source and the inability to sell electricity by 'energy cooperatives'. The lack of clear incentives and the continuously changing energy legislation cause ignorance in creating business plans and the fear of losing the money invested (often public - the possibility of criminal cases).
Is there any strategic and coherent policy approach in promoting RECs noticeable? Do the different levels of government (national-regional-municipal) inhibit or reinforce each other when creating an enabling framework for RECs? How could coordination between the national and sub-national levels of government be improved?	No.
In your view, does, the RED II cover all elements of an "enabling framework"? Are there any measures which are missing? Which additional measures do key stakeholders propose for your country?	As the Polish legislation and transposition of RED II, especially regarding RECs, is in a rather embryonic state, the assessment of an enabling framework is rather ambivalent.

Country report: Portugal

Author: Isabel Azevedo (INEGI)

1. Introducing definitions, rights and duties of RECs; corporate governance

Have RECs and CECs been formally introduced in the national legal framework? Please, indicate the respective legal acts.	Both concepts were formally introduced in the national legal framework: - RECs: The legal definition of RECs was introduced by Decree Law nº 162/2019, from 15 October 2019 (https://dre.pt/dre/detalhe/decreto-lei/162-2019-125692189), and recently revised by the Decree Law nº 15/2022, from 14 January 2022 (https://dre.pt/dre/detalhe/decreto-lei/15-2022-177634016). The latter provided some clarification regarding the concept of proximity and on the conditions for energy sharing. - CECs: The legal definition of CECs was introduced by Decree Law nº 15/2022, from 14 January 2022. The definition is similar to the one established for RECs in Portugal, with the following exceptions: (1) the proximity condition does not apply; (2) they are able to produce, distribute, supply, consume, aggregate and storage energy independently of the primary energy source (includes non-renewable sources); and (3) may be owners, establish, buy or rent closed distribution networks and be responsible for their management and operation.
How have the following items been transposed? Is the legal definition of RECs in compliance with the RED II? (Art. 2,16 RED II) In which fields do you see transposition gaps?	Overall, the transposition translates the definition of RECs that is provided by RED II, without adding sufficient specifications to facilitate the operationalisation of the concept. Different stakeholders have referred to the ambiguity of the provisions, which has been hampering the implementation of REC initiatives.

	The concept of proximity was revised and clarified by the most recent legislation (details below). Nonetheless, there are still provisions regarding autonomy, control and purpose that remain rather abstract.
Type of legal entity	The choice of legal entity is not limited by the definition.
Open and voluntary participation	Open and voluntary participation is included in the definition as a pre-condition for its creation. RECs are also obliged to admit the exit of their participants, under the condition that they fulfil their obligations.
Eligibility to participate/Membership	Criteria for eligibility of members: members must be located in the proximity of the RES project (owned and developed by the REC) or perform activities related to the RES projects from the community. It is referred that the access of consumers to RECs cannot be subject to unjustified conditions and/or procedures, which impede their participation.
Effective control	According to the applicable legislation, RECs must be controlled by its members, partners or shareholders. No additional information is provided on how this could be operationalised.
Proximity	Proximity between the generation units and consumption point is defined as follows: • in low voltage: distance lower than 2 km, or connected to the same substation - in medium voltage: distance lower than 4 km, and connected to the same substation - in high voltage: distance lower than 10 km, and connected to the same substation - in extra high voltage: distance lower than 20 km, and connected to the same substation.

	When non-compliant with these conditions, proximity can also be assessed in a case-by-case analysis by the Directorate General of Energy (DGEG).
Autonomy	Autonomy from its members and shareholders was included as a criterion in the first provisions established for RECs. However, the recently published Decree-Law (DL nº 15/2022) does not refer to the obligation of ensuring the autonomy of the REC from its members.
Primary purpose	Environmental, economic and social benefits for the community where the RES project is located should be achieved in place of pure financial profit. No additional specifications are provided in the current legislation.
Does the definition of RECs also cover the heating/cooling sector and renewable gases?	The applicable legislation refers to renewable energy projects, not excluding heating and renewable gases.
Are RECs legally entitled to **produce**, **consume**, **store** and **sell** renewable energy?	Yes.
Are RECs legally entitled to **act as DSO**? Do you know of any practical examples in your country?	CECs are allowed to own, establish, buy or rent "Closed Distribution Networks", and operate them. For RECs this is not explicitly stated in the legislation. In Portugal, even if not common, there are energy cooperatives (not RECs) who own and operate distribution networks. CEVE (https://www.ceve.pt/) and Coop Roriz (http://www.cooproriz.pt/) are two examples.
Do the rights of RECs refer both to electricity and heating/cooling and RES based gases?	The rights established by Decree-Law nº15/2022 refer to electricity, as the DL establishes the organisation and functioning of the power system.
Is **collective consumption** as defined in Art. 21 REDII **within buildings/building blocks** (without using the grid) possible? Where do you see the main barriers for **jointly acting self-consumers**?	Yes, collective self-consumption, as defined in the same legislative document as RECs, allows for energy sharing through private and public grid.

	Given the non-obligation to establish a legal entity, this type of initiatives is seen by many as an alternative to RECs, with simpler procedures.
Are RECs legally entitled **to share, within the REC, renewable energy** that is produced by the REC (using the grid)? Is there any **definition/regulatory framework for energy sharing** already in place? How is energy sharing regulated/promoted (e.g., exemption of fees, charges etc.)?	Yes, they can share the renewable energy generated by the REC among its members, using the grid. Electricity sharing is regulated by the DL15/2022, from 14 January 2022. RECs are entitled to pay the tariffs associated to the access to the grid, with some exemptions/reductions. (Article 212º) According to article 212º, CIEG charges (charges included in the network charges, associated with the costs of energy policy, sustainability and general economic interest) corresponding to the self-consumption and electricity conveyed to the grid by RECs and prosumers, may be totally or partially deducted by means of an order of the Government, on an annual basis. In the absence of the referred order, the regulatory authority is responsible for defining the part of CIEG to be deducted each year. Since the publication of this decision, in 2020, the total exemption of these costs has been applied to electricity produced by RECs and through collective prosumership. For individual prosumers, the electricity conveyed to the grid is subject to a 50% exemption of these charges.
Which **institutional body** is responsible for registering RECs/CECs? Briefly explain.	The body responsible for the registration and certification of RECs is DGEG (Directorate General for Energy and Geology), a public entity which aims at contributing to the development, promotion and assessment of policies on energy and geologic resources. The application is done through an electronic portal from DGEG.
How many RECs (pursuant to RED II) have been officially registered in your country?	Not available. This information must be made available in the near future.

	(In October 2021, there were around 10 projects approved by the DGEG as RECs, but were still being developed)
How many CECS (pursuant to IEMD) have been officially registered in your country? (estimate)	Not available.

2. Assessment of enabling frameworks

Which are the **key policy actors and public authorities responsible** for developing an enabling framework for RECs in your country? (e.g., national/regional ministries, national/regional public authorities, public/state agencies?)	At national level: - Ministry of Environment and Climate Action (MAAC) - Directorate General for Energy and Geology (DGEG) - National Energy Agency (ADENE) - Energy regulator (ERSE) At local level: - Local authorities/Municipalities
Which are other key **actors** (non-public) promoting the development of RECs? (e.g., community energy associations, etc.)	- National consumer association (DECO) - National Association for Renewable Energy (APREN) – with a specific group on self-consumption and RECs - Local and regional energy agencies - Energy community initiatives (e.g., Coopérnico)
What have been **key driving forces** and **enablers of community energy** in your country so far? (before RED II was adopted)?	The main driving forces are associated with: - Environmental purposes – the desire of individual citizens and small and medium enterprises of contributing to the reduction of GHG emissions and, consequently, to the energy transition - Economic benefits – revenues associated with the sale of electricity, for cooperatives investing in RES installations to sell the electricity to the grid; and energy bill savings for prosumers

	- Access to electricity (for early cooperatives acting as DSO) – these initiatives aimed at guaranteeing the quality of service and the supply of electricity to the local community, with electrification campaigns in the rural areas (These conclusions were derived from the focus interviews performed in the scope of T2.3)
Has the national or regional government(s) carried out any **assessment of the existing barriers and potential of development** of REC? (Art.22,3 REDII)? What are the **main findings and recommendations?** To what extent have these been considered by the government?	An assessment of the potential and barriers to the implementation of RECs is foreseen by the Decree Law No. 162/2019, however this has not yet been performed/published by the DGEG. No additional information is provided regarding the criteria that will be used in the cost-benefit analysis. Nevertheless, in DL 15/2022, it is mentioned that the definition of additional charges, fees and taxes applicable to prosumers and energy communities will be aligned with the conclusions of a transparent analysis of the cost-benefit relation of decentralized energy projects.
Do competent authorities at national, regional and local level include **provisions** for the **integration and deployment of renewable energy**, including for **RECs** in the field of **spatial planning**? Do competent authorities at national, regional and local level include **provisions** for the **integration and deployment of renewable energy**, including for **RECs** when designing, building and renovating **urban infrastructure**, industrial, commercial or residential areas and energy infrastructure? (Art.15,3 REDII)	No specific provisions are established by the competent authorities in the field of spatial planning. In the field of urban infrastructure, building performance regulation requires the installation of solar thermal panels for domestic hot water in new buildings and buildings undergoing deep renovation works, as established by the EU Directive on Energy Performance of Buildings (2002/91/EC).

In which areas do you identify key r**egulatory and administrative barriers** for RECs? Have national/regional governments recognized and addressed these barriers as well? Have they undertaken measures to remove those barriers (Art.22,4 RED II)?	As identified in the focus groups interviews performed under the scope of T2.3, the main barriers are associated with: - Complexity and lack of clarity of existing regulation. This has been partly addressed by the new Decree Law, as it provides a more concrete definition of proximity. - Burdensome and lengthy licensing processes. The creation of the role of a procedure manager is meant to create a direct communication channel with the licensing entity, to facilitate the process. This figure of procedure manager has been established by the most recent Decree Law (from January 2022) and should be in place in the near future. - Administrative barriers, associated with the definition of internal regulation. The need for the professionalization of citizens or entities responsible for the establishment and management of the REC were mentioned as relevant barriers. In the recently published Decree Law DL 15/2022, the national government makes ADENE (the national energy agency) responsible, in coordination with local energy agencies and other stakeholders, for providing support to citizens and collective entities who intend to promote community energy initiatives (including self-consumption and RECs). (Details are described below) In the new regulation, there was also an effort to simplify and clarify the provisions applicable to RECs, namely in what concerns the term “proximity”. In the previous documents, proximity was not defined, requiring always a case-by-case assessment from the licensing entity. Currently, the case-by-case assessment is only performed if the project does not comply with the proximity requirements established by the regulation. (see above the details on proximity requirements).

Are RECs subject to **fair, proportionate and transparent procedures,** including **registration and licensing procedures?** (Art.22,4 RED II) Where do you see shortcomings? Are there any procedures tailored specifically for RECs?	Procedures applicable to RECs and to (collective) self-consumption depend on the size of the generation unit(s) composing the REC energy project. These are not specific to RECs. Registration and licensing procedures have been referred by several stakeholders as one of the barriers to the implementation of RECs, involving a complex and lengthy process. The Decree Law DL nº 15/2022, recently released, had the objective to simplify the process and make it more agile. Currently, the requirements for the installation of RECs projects, in accordance with Article 11 from the Decree-Law nº 15/2022, are the following: - Installed capacity < 700W: production units (without foreseen injection into the grid) are not subject to prior control - Installed capacity 700W – 30kW: production units subject to prior communication in the dedicated platform made available by the DGEG, referring to the declaration of intent of exploration of the production unit with the identification of the promoter and characterization of the unit - Installed capacity 30kW – 1MW: production units are subject to the prior registration for the installation and the operating certificate issued by DGEG; the positioning of the system operator regarding the conditions and regime for injection into the grid may be required by the DGEG when connection to the grid exists - Installed capacity > 1MW: production units are subject to licensing for production and operation by the DGEG, and the capacity reserve may be required when connection to the grid exists. The new decree also established the figure of procedure manager, a person who will accompany the process and support the applicant throughout this process.

	The registration is done online, through a single web portal (https://apps.dgeg.gov.pt/DGEG/). Overall, the procedures are considered to be too demanding for small energy initiatives (being self-consumption or RECs). The completion of all required procedures is also a lengthy process, which discourages some SMEs and other potential promotors. The ambiguity of the criteria to be considered a REC may also hamper the transparency of the licensing procedures. This has been partially reduced by the concretisation of the concept of proximity in the recently published legislation document.
To what extent do the responsible authorities take measures providing that the **relevant DSOs cooperate with RECs** to facilitate energy transfers within RECs? (Art.22,4 RED II) Please, describe the scope of respective regulations.	RECs and collective self-consumption energy projects, when connected to the grid and with a generation capacity higher than 30kW, need the approval of the system operator. To enable energy sharing, the DSO is required to provide: - The information required for correct invoicing of the different participants in self-consumption, under the terms of ERSE regulations - The information on the energy produced and not consumed in a given time period, indicating the surplus that is injected into the grid by each generation unit - The requirements and specifications necessary to ensure the interoperability with the system operator
Do RECs benefit from any preferential network charges or any other preferential treatment with regard to network charges/tariffs etc.?	RECs and collective self-consumption benefit from the following exemptions: - exemption from the grid tariffs of the voltage levels upstream of the voltage level of the connection point, when energy is fed in from the grid upstream of the generation unit connection point; - exemption of part of the grid tariffs of the voltage levels upstream of the voltage level of the connection point, in an amount to be defined

	by the regulator, when there is a reversal of the flow of energy on the grid upstream of the generation unit connection level RECs may also be exempt from part, or all the taxes associated with the costs of energy policy, environmental or general economic interest associated with the production of electricity and the costs of sustainability of markets. This exemption is decided on a yearly basis by the regulator.
Have the national competent authorities developed a **transparent cost-benefit analysis** of distributed energy sources? Do, in your view, the relevant fees, **charges, levies and taxes** ensure that RECs contribute in an **adequate, fair and balanced way** to the **overall cost sharing** of the system taking into account the costs and benefits RECs can provide to the energy system (Art.22,4 RED II)	The national authorities did not develop a cost-benefit analysis of distributed energy sources, even though it is foreseen in the Decree Law that establishes the first provisions for RECs (DL 162/2019). The Decree Law allocates this task to the Directorate General of Energy and Geology (DGEG) that should have completed the assessment within the two years following the entry into force of the Decree Law (i.e., before the end of October 2021). The suggested charges, levies and taxes aim to be fair and proportional to the costs and benefits RECs can provide to the energy system. For instance, the network charges are defined in order to reflect the actual cost RECs incur to the system. Nonetheless, given the lack of comprehensive studies on this matter and the absence of real cases, it is difficult to assess their adequacy and proportionality in a concrete manner.
Are RECs subject to any **discriminatory treatment** with regard to their **activities, rights and obligations** as final customers, producers, suppliers, DSOs, or as other market participants? (Art.22,4 RED II)	RECs have the same rights and obligations as collective self-consumption (with few adaptations), with regard to their activities. For instance, RECs can themselves act as the entity that manages the self-consumption and energy sharing activities, while collective self-consumption initiatives need to assign an individual or collective person to represent the initiative in the operation and activities management.

	The scope of action of RECs is also larger than the one of collective self-consumption, as the later should have their own supply as the main goal. Collective self-consumption initiatives are limited to production, consumption and storage of electricity, and to the transaction in the market of the excess energy.
Is the participation in the RECs **accessible to all consumers**, including **low-income or vulnerable households?** (Art.22,4 RED II) Are there any **specific policy measures** to facilitate the participation of low-income and vulnerable groups?	Yes, as referred in the national legislation, the right to adhere and participate in a REC: *- the integration into communities is accessible to all consumers, including low-income families or vulnerable consumers* *- the option to no longer belong to a community is free and does not imply any burden associated with the change* *- information on the procedures to be adopted for setting up and participating in a community, including tools to simulate its technical and economic viability, as well as the financial instruments available, is made available in a simple, transparent way and free of charge.*
Are there any policy measures/tools available or planned **to facilitate access of RECs to finance**? (Art.22,4 RED II) (e.g., investment support, start-up financing, risk capital). Please, also consider cohesion funds and ESIF, national resilience and recovery fund. Please briefly describe.	- Supporting the initial investment (see below on existing support schemes for renewable energy) through the recovery and resilience fund - Tool to assess the technical and economic viability of the implementation of the RE installation also facilitate the access to finance. The development of the tool has been allocated to ADENE within the Decree Law 15/2022, who is not responsible for its implementation.
Are there any measures/tools available/planned **to facilitate access to information**? Is there any **legal/technical support** or **institutional support**? Please briefly describe.	The Decree Law DL nº 15/2022 stipulates: ADENE - Agência para a Energia (National Energy Agency), in cooperation with the other energy agencies and other local actors, must ensure the support in the dynamization, promotion of self-consumption as well as training, information and clarification to self-consumers and promoters of self-consumption.

	For these purposes, ADENE shall implement a kind of self-consumption and RECs support office to: - Provide information on: i) the procedures for setting up and participating in a REC or CEC or exercising the collective self-consumption activity, and respective deadlines, including the availability of guides and manuals; ii) the efficient use of energy with a view to promoting energy efficiency and the rational use of resources; - Develop a simulation tool aimed at analysing the technical and economic feasibility for the implementation and development of the self-consumption, safeguarding compliance with the GPDR provisions in situations where access to commercially sensitive or personal information; - Establish a dedicated helpline for self-consumption stakeholders
Is regulatory and capacity-building support provided **to public authorities** to enable and set up RECs, or to participate directly in RECs? (Art.22,4 RED II)	The duties recently allocated to ADENE (by the Decree Law DL 15/2022) will result in the provision of regulatory and capacity building support to all prosumers and promoters of self-consumption, including public authorities. The Decree Law does not refer to any support specific to public authorities. Moreover, in the approved NECP, the "promotion of programmes to support the establishment of energy communities in partnership with municipalities" is included as one of the actions to promote the dissemination of distributed production, prosumership and energy communities. This action is expected to be implemented until 2025.
Are there any rules in place to secure the **equal and non-discriminatory treatment of consumers** that participate in the REC?	National legislation (Decree Law DL 15/2022) establishes the following: - Consumer access to a REC may not be subject to unjustified or discriminatory procedures that impede their participation. - A REC must allow the withdrawal of any of its participants, subject to compliance with the obligations to which it is bound.

	No additional rules are in place.
Are there any **national or regional objectives or targets for RECs** and **community energy** in general? (quantitative and/or qualitative)	As already referred in the COME RES Deliverable D2.1 (Assessment Report on Technical, Legal, Institutional and Policy Conditions in the COME RES countries) there are no national/regional quantitative targets for RECs. Instead, there are targets for RES-e generation, with a specific target for decentralised PV generation. In the 2050 roadmap towards carbon neutrality, it is foreseen that individual consumers and SMEs could be responsible for more than 20% of the national electricity generation, with the participation of energy generation cooperatives and energy communities. Concerning qualitative targets, the Portuguese NECP refers to energy communities as relevant for the attainment of national targets on participation of consumers in the energy system, and on the reduction of energy poverty. Within the planned policies and measures, there is one line of action specifically focusing on "Promoting the dissemination of distributed production and self-generation of energy and energy communities", including the creation of a favourable legal and regulatory framework.
Are there any **dedicated support schemes for RECs/community energy** in general providing **operational support**?	In June 2022, the national government opened a call to support the implementation of Renewable Energy Communities and Collective Self-Consumption, financed through the Recovery and Resilience Plan. This program aims at promoting electricity generation from renewable energy sources at the community level, including RECs and collective self-consumption. The supported measures are expected to lead to a reduction of 30% of primary energy use in the intervened buildings and an increased RES-e generation capacity of 93 MW (35 MW in residential buildings, 28 MW in public buildings from central administration, and 30 MW in services

	buildings). Promotors of RECs and collective self-consumption initiatives, being single or collective persons, are eligible for funding. The programme finances up to 50% (services buildings), 70% (residential buildings) or 100% (public buildings) of the investment associated with: - the installation of RES-e generation systems, with or without storage; - the performance of studies and consulting services (limited to 10% of the total eligible investment) - the acquisition of software and/or smart platforms (limited to 25% of the total eligible investment) The maximum limit for funding is 500 k€ per community initiative, and 200 k€ per generation unit (including storage). The applications are assessed according to the following criteria: - number of participants/members of the community initiative, in order to value the applications that involve more members and installation units; - ratio between investment and energy savings (€/toe), aiming for economic efficiency; - share of the total electricity consumption ensured by self-generation; - energy sharing index, in order to value projects leading to a greater distribution of the electricity generated by the members of the initiative.

3. Assessment of RES support scheme[200] designs

What are the **key existing support schemes for renewable energy** in the field of electricity? (e.g. investment support via cohesion funds and ESIF, resilience and recovery funds; operational support via feed in premiums, competitive bidding/auctions etc.) Are there any modifications to existing support schemes/new support schemes planned in the future?	In Portugal, a license auction system has been implemented for the production of electricity from renewable energy sources, with a focus on solar energy. This is a competitive procedure where the connection of RES generation plants to the grid, with the possibility of electricity injection, is auctioned. The winning bidders are awarded the right to access the grid, through the allocation of capacity reserve permits that allow them to inject electricity into the grid. The auctions allow for three distinct remuneration models: “Variable difference premium”; “Fixed compensation to the national electricity system”; and “Fixed flexibility premium”. Moreover, the Resilience and Recovery Fund will support investments in RES-e generation units, through the following areas: - Energy efficiency in Residential Buildings (300 M€): this dimension includes actions associated with the implementation of RES electricity generation systems for prosumership and RECs. Currently, there is an open call for building owners, where solar PV generation is eligible. Citizens need to invest upfront and then apply for refund of their investment. - Energy efficiency in public buildings (240 M€): this dimension considers actions to increase the RES energy gene<ration in public buildings. The currently open call is similar to the one applicable to the residential buildings, requiring the initial investment from the applicant. According to

[200] In accordance with Art.2 of RED II **support scheme** means 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.

	a Ministry representative, the release of a new call specific for local authorities is planned for the beginning of 2022. - Decarbonisation of the industrial sector (715 M€): this dimension intends to provide financial support to the industry sector to accelerate the decarbonisation of their facilities and processes. Here, investments in RES generation for self-consumption are also eligible.
To what extent do national and regional governments **take into account the specificities of RECs** when designing support schemes for RES-E? (e.g., special rules, preferential treatment)	RECs do not have access to specific rules of special treatment on RES-e support schemes. However, the latest financing programme is dedicated to RECs and collective self-consumption promoters (see above).
If **auctions** represent the key support scheme for RES-E in your country: have any of the following measures been implemented or are such measures planned? Please briefly describe.	None of the specific measures has been implemented in Portugal.
*Exemptions for RECs from taking part in auctions/ Use of the **de minimis rule**[201]*	
*Special **bidding windows/categories** for RECs within the auction system (e.g., like in Ireland)*	
*Special REC related **pre-qualification criteria** all bidders have to fulfil in order to take part in the auctions*	

[201] The new **Climate, Energy and Environmental State Aid Guidelines (CEEAG) (https://ec.europa.eu/competition-policy/sectors/energy-and-environment/legislation_en)** provide additional flexibility for RECs, allowing Member States to exempt REC projects and SME-owned projects below 6 Megawatts (MW) of installed capacity from the competitive bidding requirement. RECs and small and micro enterprises may also develop wind projects up to 18 MW without competitive bidding. More generally, where competitive bidding does apply, the CEEAG enable Member States to design tenders in a way which enhances the participation of energy communities, for example by lowering pre-qualification requirements.

(e.g., minimum number of shares offered to RECs/local communities, existence of a community engagement plan)	
***Multi-criteria assessment** for selection of successful bids (i.e., selection not only based on the offered price/remuneration level, but also on social criteria, e.g., community co-ownership etc.)*	
*Special **pricing rules** for RECs (e.g., uniform pricing in Germany, bonus payments in France)*	
Others	
Are the existing/proposed measures under section 3 sufficient to effectively facilitate the development of RECs? What should be improved?	According to different stakeholders, **access to financing** is still a barrier, which is yet to be solved. These could be improved, for instance, through dedicated support schemes (the recently released financing programme might be a good lever for investments in community initiatives). Moreover, municipalities can also have a role here, acting as a promotor or facilitator. Municipalities can make a significant contribution in the recruitment of potential REC members and on the identification of potential investors. The required **administrative (incl. internal regulation) and regulatory procedures** also constitute a relevant barrier. Nonetheless, the Decree Law DL 15/2022 is a first step towards the simplification of the licensing procedures and to the provision of dedicated support to RECs, through the creation of a "self-consumption and RECs support office" by ADENE (not yet in place). Moreover, the length of licensing procedures needs to be considerably shortened. There are also some issues regarding the **REC operation**, mainly associated with the energy sharing among the different members. The new legislation allows for energy sharing through the use of specific dynamic management systems, which enable the dynamic monitoring, control and

	management of energy, in real time, to optimise energy flows. On this matter, the creation of a guide or manual with technical requirements and main principles for REC operation could be beneficial.
Which other accompanying support measures specifically targeting RECs do exist in your country (in addition to those mentioned above in sections 2 and 3; e.g., R&D programmes, regulatory sandboxes, others)?	Regulatory sandboxes (not only for RECs): Regulation nº 373/2021 established the possibility of carrying out pilot projects in the scope of self-consumption, which need to be approved by the regulatory entity. The approved projects may require occasional and transitory derogation from some of the rules applicable to self-consumption and energy sharing.

4. Novel and promising policy measures

Do you know of any **novel or promising policy measures** on a national/regional/local level **in your country** which may serve as a model for other countries/regions/municipalities in order to facilitate the development of RECs? If possible provide a short description.	The creation of the tool for the assessment of the technical and economic feasibility of the renewable energy projects, proposed in the Decree Law 15/2022, could provide relevant support to the different stakeholders aiming to implement a REC initiative. The fact that it will be developed by the national energy agency may also increase the credibility of the assessment by third-party financing entities. The dedicated support to municipalities (as proposed in the NECP) could also leverage their role as promotors or facilitators of energy community initiatives.
Do you know of any policy measures adopted **in other countries** which may serve as a **model for your country** in order to facilitate the development of RECs? If possible provide a short description.	No information available.

5. Overall assessment

Where do you see the most **urgent gaps/needs for policy action**? Which elements of the enabling framework are of highest importance?	- Elimination of unjustified regulatory and administrative barriers - Accessibility of all consumers, including low income and vulnerable families, to the participation in RECs - Provision of support to public authorities in the facilitation and implementation of RECs - Availability of instruments to facilitate the access to financing (partly achieved with this new programme)
Which actions should be taken at which level of government to put those priority elements into action?	National level: - provision of dedicated support schemes to facilitate the access to finance; - provision of information and training to relevant stakeholders; - and implementation of programme to support municipal authorities in their role of promoter or facilitator of REC initiatives. Local level: - targeting most vulnerable consumers and ensure they have access to participate in RECs - facilitating the implementation of REC initiatives, by promoting the participation of individual citizens and local SMEs in a joint investment - leading by example, with the development of REC initiatives, and dissemination of success stories in the local context
Is there any strategic and coherent policy approach in promoting RECs noticeable? Do the different levels of government (national-regional-municipal) inhibit or reinforce each other when creating an enabling framework for RECs? How could coordination between	Currently, a coherent common strategy is not obvious. Nevertheless, it is also not visible any clear contradiction between the actions taken at different governance levels. It could be important to discuss and develop a common strategy between national and local authorities, in order to maximise potential synergies.

the national and sub-national levels of government be improved?	
In your view, does, the RED II cover all elements of an “enabling framework”? Are there any measures which are missing? Which additional measures do key stakeholders propose for your country?	The elements which are crucial for the large-scale deployment of RECs are covered by the enabling framework from RED II.

Country report: Spain

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1. Introducing definitions, rights and duties of RECs; corporate governance

Have RECs and CECs been formally introduced in the national legal framework? Please, indicate the respective legal acts.	In Spain, the legal formation of RECs is regulated by Royal Decree-Law 244/2019 of April 5 2019[202] and in Royal Decree-Law 23/2020 of June 23, 2020.[203] The concept of Renewable Energy Communities (RECs) has been transposed into Spanish law by means of Royal Decree-Law (RDL) 23/2020, the most authoritative regulation in the electricity sector. RDL 23/2020 establishes the definition of RECs and recognises them as official subjects of the electricity sector in art. 6.1. Moreover, RDL 23/2020 stipulates that, in competitive bidding procedures, the specificities of RECs must be taken in consideration in order to ensure they can compete for access to the grid on an equal footing with other participants (art 2.7 bis). Unlike RECs, CECs have not yet been transposed as a subject of the electricity sector and no transposition process is currently planned.
How have the following items been transposed? Is the legal definition of RECs in compliance with the RED II? (Art. 2,16 RED II) In which fields do you see transposition gaps?	The transposition is still ongoing. The REC definition is almost a word-by-word translation of RED II Art 2(16).

[202] https://www.boe.es/boe/dias/2019/04/06/pdfs/BOE-A-2019-5089.pdf
[203] https://www.boe.es/buscar/pdf/2020/BOE-A-2020-6621-consolidado.pdf

Type of legal entity	A REC has to be a legal entity. Nonetheless, no specific legal entity has been defined/provided.
Open and voluntary participation	Yes
Eligibility to participate/Membership	Members/partners can be individuals, SMEs and local authorities (including municipalities).
Effective control	Members/partners must be the owners and have the effective control of the REC. There is, however, no specification or operationalisation included.
Proximity	Members/partners must be located in the vicinity of the renewable energy projects that are owned by the REC. However, no further specifications are existing so far. Most Spanish RECs use the legal framework for collective self-consumption (RDL 244/2019) that envisages that members of a collective self-consumption unit must be within a 500m radius of the installation. This framework is being used due to the lack of a full transposition of RED II and in order to provide some legal stability to this kind of initiatives.
Autonomy	Yes. However, there is no specification or operationalisation included.
Primary purpose	To provide environmental, economic or social benefits to their partners or members or to the local areas where they operate, rather than focus on financial gains.
Does the definition of RECs also cover the heating/cooling sector and renewable gases?	Although not explicitly included in the definition of RDL 24/2020, the 'CE-Implementa' tender specifications[204] define certain activities that can be carried out by RECs, and explicitly mention renewable gases, e-mobility and energy efficiency.

[204] 'CE-Implementa' is one of the main support schemes for RECs providing €100 million in subsidies for REC projects under the Spanish Recovery, Transformation and Resilience Plan. It is administered by the national government (see also the other sections of this report).

Are RECs legally entitled to **produce**, **consume**, **store** and **sell** renewable energy?	Yes
Are RECs legally entitled to **act as DSO**? Do you know of any practical examples in your country?	Yes. As a practical example, the COMPTEM[205] project introduced an automatized block-chain system whereby energy is efficiently and automatically distributed among members according to their consumption patterns. The COMPTEM best practice case and other of best practice cases elaborated in the frame of COME RES, can be found in the COME RES Deliverable 5.3.[206]
Do the rights of RECs refer both to electricity and heating/cooling and RES based gases?	Although not explicitly included in the definition of RDL 24/2020, the CE-Implementa tender specifications define certain activities that can be carried out by RECs, and explicitly mentions renewable gases, e-mobility and energy efficiency.
Is **collective consumption** as defined in Art. 21 REDII **within buildings/building blocks** (without using the grid) possible? Where do you see the main barriers for **jointly acting self-consumers**?	Collective self-consumption is possible. In fact, most of the existing RECs, due to the lack of a complete transposition of RED II, use the legal framework provided in RD 244/2019 for collective self-consumption. The main barriers are: - Members/partners must be within a 500 m radius from the generator - Only low-voltage is allowed
Are RECs legally entitled **to share, within the REC, renewable energy** that is produced by the REC (using the grid)? Is there any **definition/regulatory framework for energy sharing** already in place? How is energy sharing regulated/promoted (e.g., exemption of fees, charges etc.)?	Energy sharing is foreseen in RDL 244/2019, which introduces the concept of “collective self-consumption” in Article 3.m

[205] https://www.grupoenercoop.es/conocecomptem/

[206] https://come-res.eu/fileadmin/user_upload/Resources/Deliverables/COME_RES_D5.3_Synthesis_Report_Assessment_10_best_practices.pdf

How is energy sharing regulated/promoted (e.g., exemption of fees, charges etc.)?	RDL 244/2019 introduces the concept of energy sharing through the figure of collective self-consumption, although several practical limitations are embedded in the current legal definition. For instance, art 3.g. establishes the requirement for both generation and consumption to be connected at low voltage and at a distance of less than 500 metres from each other. To promote energy sharing, the "National Self-consumption Roadmap"[207] published by the Ministry for Ecological Transition, introduces a number of measures, including amendments to the Horizontal Property Law to facilitate decision-making by homeowners' associations on the incorporation of self-consumption systems in residential buildings for communal use (e.g., requiring a simple majority instead of consensus to approve the project); the creation of a working group on self-consumption with homeowners' associations, etc. At regional level, Autonomous Communities (e.g., Comunidad Valenciana, Andalucía or Extremadura) and municipalities provide incentives to the establishment of self-consumption installations in the form of grants, subsidies and tax exemptions. These incentives are tied to specific prerequisites that each autonomous community establishes, including in terms of shareholder structure, geographical coverage etc.
Which **institutional body** is responsible for registering RECs/CECs? Briefly explain.	According to RD 24/2020 energy communities may be any legal entity, whether public or private, legally and validly constituted, although no official registration system for RECs is in place. Although, the Spanish Energy Saving and Diversification Agency IDAE, has voluntarily created an interactive map to take stock of existing initiatives, which are added to the map on a voluntary basis.

[207] https://www.miteco.gob.es/es/ministerio/planes-estrategias/hoja-ruta-autoconsumo/hojaderutaautoconsumo_tcm30-534411.pdf

How many RECs (pursuant to RED II) have been officially registered in your country?	There does not exist an official register of RECs in Spain. Nonetheless, there is a mapping that includes 20 (according to IDEA's RECs map)[208], although the real number is probably higher. RESCOOP's map of energy cooperatives identifies 27 in Spain[209]. Nonetheless, that map should be taken with care given that energy cooperatives are not necessarily RECs.
How many CECS (pursuant to IEMD) have been officially registered in your country? (estimate)	CECs have not yet been introduced in Spanish law.

2. Assessment of enabling frameworks

Which are the **key policy actors and public authorities responsible** for developing an enabling framework for RECs in your country? (e.g., national/regional ministries, national/regional public authorities, public/state agencies?)	IDAE, the Spanish energy saving and diversification agency, a body controlled by the Ministry for the Ecological Transition, is the main public authority with regards to RECs (for example, in terms of providing subsidies). The Spanish national government and parliament are also important actors insofar as the RED II directive is still not fully transposed into Spanish legislation. These bodies have therefore a role to play in this respect. Regional and local authorities may also have some importance in developing an enabling framework in some geographical areas. For example, in Balearic Islands, IBE (Balearic Institute for energy) supports, helps and finances incipient RECs. Many municipal governments also play a crucial role in giving institutional support to local RECs.

[208] https://www.idae.es/ayudas-y-financiacion/comunidades-energeticas/comunidades-energeticas-vigentes-en-las-distintas-comunidades-autonomas
[209] https://www.rescoop.eu/network/map/

Which are other key **actors** (non-public) promoting the development of RECs? (e.g., community energy associations, etc.)	Apart from public authorities, some community associations and existing RECs have some limited role in promoting RECs. For example, the associations *Unión Renovables* at national level or the REC *La isla bonita* at regional level (Canary Islands).
What have been **key driving forces** and **enablers of community energy** in your country so far? (before RED II was adopted)?	Before the adoption of RED II, and up until 2018, collective self-consumption was expressly prohibited in the now repealed Royal Decree 900/2015, which regulated renewable energy self-consumption. This repeal has therefore been an instrumental driver. Specifically, following the approval of Royal Decree-Law 15/2018, of 5 October, on urgent measures for energy transition and consumer protection, a new much more favourable framework for self-consumption was consolidated in a state regulation, and later on further developed by Royal Decree 244/2019. However, it was not until the adoption of RED II Directive that a critical boost to community energy initiatives was observed. Among the driving forces of CE before the adoption of RED II, energy cooperatives in Spain (such as SomEnergia or GoiEner, among others), many of which emerged before 2015 have played a key role in the promotion of the commercialisation and sharing of renewable energy in their local communities and are currently at the forefront of community energy initiatives in Spain together with municipalities, SMEs and citizens.
Has the national or regional government(s) carried out any **assessment of the existing barriers and potential of development** of REC? (Art.22,3 REDII)? What are the	Yes, through its Guide for the Development of Instruments for the Promotion of Energy Communities (*Guía para desarrollar instrumentos de fomento de comunidades energéticas)*[210], IDAE identifies both barriers and recommendations.

[210] https://www.idae.es/sites/default/files/documentos/publicaciones_idae/guia_para-desarrollo-instrumentos-fomento_comunidades_energeticas_locales_20032019.pdf

main findings and recommendations? To what extent have these been considered by the government?	Key barriers: - Lack of a developed regulatory framework. - Complexity of administrative procedures - Lack of finance - Lack of interest from citizens - Lack of technical knowledge by citizens - Lack of time of members (voluntary basis) - Demotivated members Key recommendations: - Bottom-up initiatives - Technical and political leadership (e.g., local municipality) - The support of the public administration is critical - Intensive support from public administration to first RECs, as these work as „ambassadors“. - “One stop shop” to facilitate the development of incipient RECs. This “one stop shop” will provide all necessary information to a would-be REC developer and would concentrate all necessary administrative procedures within it so that the bureaucratic process is significantly facilitated. - Role model of pilot projects - Local NGOs and associations have a key role to play.
Do competent authorities at national, regional and local level include **provisions** for the **integration and deployment of renewable energy**, including for **RECs** in the field of **spatial planning**?	Concerning spatial planning, the Spanish Institute for Energy Saving and Diversification (IDAE) has developed a tool for the environmental zoning of renewable energies consisting of two layers of information (one for wind energy and one for photovoltaic energy)[211]. No specific provisions regarding RECs have been observed.

[211] https://www.miteco.gob.es/es/calidad-y-evaluacion-ambiental/temas/evaluacion-ambiental/zonificacion_ambiental_energias_renovables.aspx

Do competent authorities at national, regional and local level include **provisions** for the **integration and deployment of renewable energy**, including for **RECs** when designing, building and renovating **urban infrastructure**, industrial, commercial or residential areas and energy infrastructure? (Art.15,3 REDII)	Regarding infrastructure building and renovation, the Spanish Recovery, Transformation and Resilience Plan set as one of its main goals the decarbonisation of economic sectors and buildings through the integration of renewable energies, whilst the National Climate and Energy Plan 2030 (PNIEC) established a measure on the proactive accountability of the public sector and energetically efficient public procurement. Concerning community energy initiatives, both Plans include provisions on the promotion of self-consumption with renewables and distributed generation.
In which areas do you identify key r**egulatory and administrative barriers** for RECs? Have national/regional governments recognized and addressed these barriers as well? Have they undertaken measures to remove those barriers (Art.22,4 RED II)?	Key barriers identified: - Regulatory uncertainty: lacking a full transposition of RED II, RECs have to use RD 244/2019 that regulates collective self-consumption. The lack of a specific legal framework deters many potential actors, especially local administrations. The Spanish state is, in theory, on the way of making the transposition. When this will happen is still unclear. - Limitations on voltage of RD 244/2019: having to use this law, current RECs can only employ low-voltage and cannot exceed a 500 m radius. The government has said that it is working to change these limitations. - Complexity of technical and administrative procedures: the lack of technical knowledge of normal citizens and the complexity of the bureaucratic procedures deters many actors. The government has announced that it will address these issues by providing specific funding for a network of Community Transformation Offices (accompanying and advising incipient RECs), as well as financing lines for would-be RECs during their first steps (CE-Aprende, CE-Planifica). Some regional

	administrations also advise incipient RECs, such as IBE in the Balearic Islands. - Lack of human resources with the necessary training and technical skills to provide advice and support to RECs in small municipalities. - Lack of harmonised/unified procedures in different regions and municipalities, Financing needs: access to funding could be a problem for many RECs. The national government is trying to address this issue through a new funding stream (CE-Implementa). Other local or regional administrations also provide some type of financial support (IBE, municipality of Crevillent).
Are RECs subject to **fair, proportionate and transparent procedures,** including **registration and licensing procedures?** (Art.22,4 RED II) Where do you see shortcomings? Are there any procedures tailored specifically for RECs?	Yes, in principle, although no tailored procedures are in place. RECs are currently subject to the general licensing provisions for self-consumption based on renewable energy[212] – including the so-called *licencia de obras* which has been already eliminated in 12 autonomous communities in Spain. Nonetheless, RECs developers often complain about the complexity of administrative procedures, especially when it comes to obtaining permission to use the grid from their owners, mostly large energy enterprises. Moreover, there is no specific register for RECs.
To what extent do the responsible authorities take measures providing that the **relevant DSOs cooperate with RECs** to facilitate energy transfers within RECs? (Art.22,4 RED II) Please, describe the scope of respective regulations.	Although there is no legal or administrative impediment to such action for responsible authorities, there is not any specific measure to facilitate or require such a cooperation. In principle, REC members can use the DSO's grid in the same way as other self-consumers, as developed by

[212] https://www.idae.es/sites/default/files/20201005%20Guia%20autoconsumo%20v.3.0_NIPO.pdf

	RD Law 1183/2020[213], as well as Order 1/2021 of the CNMC (Spanish competition regulator).[214]
Do RECs benefit from any preferential network charges or any other preferential treatment with regard to network charges/tariffs etc.?	No
Have the national competent authorities developed a **transparent cost-benefit analysis** of distributed energy sources? Do, in your view, the relevant fees, **charges, levies and taxes** ensure that RECs contribute in an **adequate, fair and balanced way** to the **overall cost sharing** of the system taking into account the costs and benefits RECs can provide to the energy system (Art.22,4 RED II)	National authorities have developed a cost-benefit analysis and fees and other charges are, in our opinion, adequate even though they do not benefit RECs. There have been important studies and analyses commissioned by the national government that have led to a roadmap for the promotion of self-consumption (not specifically RECs).[215] These studies include rigorous analysis of the costs and benefits of self-consumption. There is, in principle, no discriminatory treatment in terms of the overall cost sharing of the system. In addition, some municipalities consider rebates on Property Tax (IBI) for investments in self-consumption of renewable energies of up to 50% of the tax, which positively contributes to their balanced participation in the energy system (not specific for RECs).
Are RECs subject to any **discriminatory treatment** with regard to their **activities, rights and obligations** as final customers, producers, suppliers, DSOs, or as other market participants? (Art.22,4 RED II)	No, although some of the barriers identified above could be understood as discriminatory by some people (e.g., limitation to low voltage).
Is the participation in the RECs **accessible to all consumers**, including **low-income or vulnerable households?** (Art.22,4 RED II) Are there any **specific**	RECs participation is legally open to all consumers, although its accessibility by low-income groups vastly depends on the choice of business and financial model of each specific REC. Some examples

[213] https://www.boe.es/buscar/pdf/2020/BOE-A-2020-17278-consolidado.pdf
[214] https://www.boe.es/boe/dias/2021/01/22/pdfs/BOE-A-2021-904.pdf
[215] https://www.miteco.gob.es/es/ministerio/planes-estrategias/hoja-ruta-autoconsumo/hojaderutaautoconsumo_tcm30-534411.pdf

policy measures to facilitate the participation of low-income and vulnerable groups?	exist in which vulnerable households are the main participant in the REC, for example the REC La Energía del Cole in Arroyomolinos de León (Huelva). The following policy measures may apply to the facilitation of low-income and vulnerable groups in RECs: • The "fight against energy poverty" is one of the criteria considered for receiving financial assistance under the umbrella of CE-Implementa, specific to RECs development. Nonetheless, through the involvement of (mainly) municipal administrations in specific RECs, the participation of vulnerable households is prioritised. The above-mentioned REC is an example of this. • The National Strategy Against Energy Poverty 2019-2024[216] establishes that among the measures to be considered in the medium/long term in the fight against energy poverty, the promotion of thermal and/or electrical self-consumption in association should be taken into account. • The National Energy and Climate Plan 2030 (PNIEC), under measure 1.4 (*Developing self-consumption with renewables and distributed generation*) establishes a specific goal on reducing energy poverty, in particular by allocating a share in collective self-consumption schemes promoted by public administrations or social entities to vulnerable households, which would directly reduce the electricity bills of consumers at risk of energy poverty.
Are there any policy measures/tools available or planned **to facilitate access of RECs to finance**? (Art.22,4 RED	Yes, the government has created a REC financing support scheme. This is part of the Recovery, Transformation and Resilience Plan (Reform C7.R3) and encompasses €100 million along 4 lines of assistance:

[216] https://www.miteco.gob.es/es/prensa/estrategianacionalcontralapobrezaenergetica2019-2024_tcm30-496282.pdf

II) (e.g., investment support, start-up financing, risk capital). Please, also consider cohesion funds and ESIF, national resilience and recovery fund. Please briefly describe.	- Community Transformation Offices: funding for organisations and initiatives that have the aim of publicising the concept of REC and its benefits and accompanying and advising incipient RECs. - "CE-Aprende": funding to initiatives related to the dynamization, promotion and publicity of a specific incipient community with the aim of familiarising people and organisations interested with the concept and to identify and bring in possible partners and members. - "CE-Planifica": funding for planning and constitution of the REC (including feasibility studies, contract models, technical assistance, legal assistance, etc.). - "CE-Implementa" (€40 million): the only line of funding currently in place (application period finished on 1 March 2022) and that funds for up to 60% of the cost of REC projects in the fields of renewable and thermal energy, energy efficiency and/or e-mobility. Project selection takes into account innovativeness level, social participation, social benefits, fight against energy poverty, employment generation, gender perspective, and combination of different technologies. Other components from the Recovery, Transformations and Resilience Plan have also been identified as suitable for RECs, although they are not specifically directed at them. Apart from the national government, many Comunidades Autónomas (regions) and Diputaciones Provinciales (provinces) offer financial assistance for renewable energy self-consumption projects which can

	be applied for by RECs.[217] The exact assistance varies from place to place, although they normally consist of subsidies for a part of the cost of the installation. Additionally, many municipalities have tax deductions for buildings that install renewable energy facilities.
Are there any measures/tools available/planned **to facilitate access to information**? Is there any **legal/technical support** or **institutional support**? Please briefly describe.	Yes. In terms of facilitating access to information, the above-mentioned Community Transformation Offices and CE-Aprende will facilitate access to information and promote REC's concept. In terms of legal/technical support, the above-mentioned CE-Planifica has planning of all technical, legal and administrative aspects as its goal. Moreover, local administrations involved in developing RECs provide very important administrative support to RECs members.
Is regulatory and capacity-building support provided **to public authorities** to enable and set up RECs, or to participate directly in RECs? (Art.22,4 RED II)	Some capacity building support exists for public authorities in this sense (although not regulatory). The IDAE's *Guide for Renewable Energy Communities*, as well as the *Guide for the promotion of RECs with a municipal perspective* by the Diputación de Barcelona is a good example of this[218]. Moreover, the CE-Aprende and CE-Oficinas[219] call for proposals aims to set up a network of support activities from which public authorities may benefit, including the creation of subsidised offices across the Spanish territory.

[217] For (a) see https://www.gva.es/es/inicio/procedimientos?id_proc=21040&version=amp; for (b) see https://www.agenciaandaluzadelaenergia.es/es/ayudas-la-financiacion/incentivos-para-energias-renovables-en-autoconsumo-almacenamiento-y-termicas-sector-residencial; for (c) see https://arosaid.com/2021/11/08/madrid-incentivos-ligados-al-autoconsumo-y-almacenamiento-con-fuentes-de-energia-renovable-desde-16nov21/

[218] See https://www.diba.cat/documents/471041/361729804/Guia+Comunidades+Energe%CC%81ticas+%28ESP%29+-+Diputaci%C3%B3n+Barcelona.pdf/ad666bce-cd05-9702-e828-349ddb0bc04d?t=1640016116134

[219] https://www.miteco.gob.es/es/prensa/ultimas-noticias/el-miteco-abre-a-audiencia-p%C3%BAblica-la-puesta-en-marcha-de-oficinas-de-promoci%C3%B3n-asesoramiento-y-apoyo-a-las-comunidades-energ%C3%A9ticas/tcm:30-532626

Are there any rules in place to secure the **equal and non-discriminatory treatment of consumers** that participate in the REC?	Apart from the market competition laws (which should provide all market access equal rights and treatment) there are no specific rules for RECs in this sense.
Are there any **national or regional objectives or targets for RECs** and **community energy** in general? (quantitative and/or qualitative)	Not specifically for RECs. There are national objectives for self-consumption (including collective self-consumption) of between 9 GW and 13 GW by 2030.[220]
Are there any **dedicated support schemes for RECs/community energy** in general providing **operational support**?	As already mentioned, there is a specific support scheme for RECs coming from the national government's Recovery, Transformation and Resilience Plan and from a number of regions, provinces and municipalities.

3. Assessment of RES support scheme[221] designs

What are the **key existing support schemes for renewable energy** in the field of electricity? (e.g., investment support via cohesion funds and ESIF, resilience and recovery funds; operational support via feed in premiums, competitive bidding/auctions etc.) Are there any modifications to existing support schemes/new support schemes planned in the future?	Currently, the most important support scheme for renewable energies in Spain comes from the Recovery, Transformation and Resilience Plan (component C7)[222]. This framework expands, modifies and improves former support schemes, such as the previous renewable energy remuneration framework. Component C7 of the Plan includes a series of reforms:

[220] https://www.miteco.gob.es/es/ministerio/planes-estrategias/hoja-ruta-autoconsumo/hojaderutaautoconsumo_tcm30-534411.pdf

[221] In accordance with Art.2 of RED II **support scheme** means 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.

[222] https://www.lamoncloa.gob.es/temas/fondos-recuperacion/Documents/16062021-Componente7.pdf

	- Normative framework: this will be articulated through a series of new laws and regulations. It will include a new Renewable Energy Retribution Framework that guarantees a certain cashflow for renewable energy investors through renewable auctions, simplified administrative procedures, and self-consumption. Other planned actions will include a new normative framework to include renewable energy in residential and commercial buildings, new administrative procedures to request permits for access to the grid, and new frameworks to evaluate the environmental impact of renewable energy projects. Feed-in-tariffs, in contrast to many European countries, were terminated a decade ago. - National Self-consumption Strategy: still at the drafting stage, but that has the goals of eliminating barriers and providing normative and financial support. - Development of RECs: including development of the legal framework, administrative support and promotion of pilot projects. Materialised through the already-mentioned CE-Aprende, CE-Planifica and CE-Implementa. - Framework for supporting innovations and technology development in the field of renewable energy: still at the drafting stage. Investments (3,165€ million until 2030): - For the development of renewable energy in buildings and industries, promotion of pilot and innovative projects. - Specific financing lines for the archipelagos (Canarias and Baleares). This Recovery, Transformation and Resilience Plan will determine many normative and support scheme changes during the coming months and

	will become the main reference for renewable energy development in Spain. Cohesion and ESIF funds do exist for renewable energy projects in Spain. Nonetheless, these are administered through IDEA, who then opens up funding streams directly or through regional governments.[223]
To what extent do national and regional governments **take into account the specificities of RECs** when designing support schemes for RES-E? (e.g., special rules, preferential treatment)	As mentioned above, the Spanish Recovery plan directly incorporates the support of RECs as an integral part of its renewable energy promotion strategy, with specific (planned) rules and funding streams.
If **auctions** represent the key support scheme for RES-E in your country: have any of the following measures been implemented or are such measures planned? Please briefly describe.	
*Exemptions for RECs from taking part in auctions/ Use of the **de minimis rule**[224]*	Auctions in Spain work to guarantee a fixed, long-term price to renewable energy installations. Renewable energy units bid in the auction for a fixed, guaranteed price. This price is the one that will be perceived by that unit in the market. The market operator (OMIE) will make the necessary adjustments to guarantee this price to the unit (i.e., make up for the difference if the market price is lower than the guaranteed one, impede a surplus for the unit if the market price is higher than the guaranteed one). The auctions therefore serve as a way of guaranteeing a price that allows renewable energy units to hedge their long-term positions.

[223] https://www.idae.es/ayudas-y-financiacion/lineas-de-ayudas-la-inversion-en-renovables-fondos-feder

[224] The new **Climate, Energy and Environmental State Aid Guidelines (CEEAG) (https://ec.europa.eu/competition-policy/sectors/energy-and-environment/legislation_en)** provide additional flexibility for RECs, allowing Member States to exempt REC projects and SME-owned projects below 6 Megawatts (MW) of installed capacity from the competitive bidding requirement. RECs and small and micro enterprises may also develop wind projects up to 18 MW without competitive bidding. More generally, where competitive bidding does apply, the CEEAG enable Member States to design tenders in a way which enhances the participation of energy communities, for example by lowering pre-qualification requirements.

	Although auctions represent a key support scheme for the development of renewable energy in Spain, participation in them is, of course, voluntary. Renewable energy units should assess the desirability of having a long-term fixed price when deciding to bid or not. In fact, 2021 was the first time an auction of this kind was held in Spain since 2016. Nevertheless, not having had auctions for 5 years has not (legally or practically) impeded the development of renewable energy in the country. Therefore, RECs do not have to participate in auctions (but neither the rest of renewable energy investors, too).
*Special **bidding windows/categories** for RECs within the auction system (e.g., like in Ireland)*	Partly, RECs as such have not been given a specific treatment in last auctions. Nonetheless the last auction (19 October 2021) had 300 MW reserved for which only "citizens-led, distributed PV generation projects" could bid, which was generally understood as giving a special category for RECs (albeit only for PV projects). Another auction is planned for 6 April 2022, for which 140 MW are reserved for "small PV projects with citizen participation."
*Special REC related **pre-qualification criteria** all bidders have to fulfil in order to take part in the auctions (e.g.,minimum number of shares offered to RECs/local communities, existence of a community engagement plan)*	There are some specific criteria to be fulfilled by these "citizen-led, distributed generation projects", namely: *"The reserve for local distributed generation photovoltaic installations is characterised by the fact that it is intended for installations with an installed capacity equal to or less than 5 MW, in turn, establishing requirements relating to the obligation to connect to the distribution grid at a voltage equal to or less than 45 kV, the local and participatory nature of the ownership or financing of the installations and their location close to centres of electricity consumption centres. The legal entity must be a (i) cooperative with at least 10 members residing within a radius of 30km*

	from the installation, or (ii) a local public administration, or (iii) a firm with at least 25% of its equity owned by local physical persons or entities."[225]
***Multi-criteria assessment** for selection of successful bids (i.e., selection not only based on the offered price/remuneration level, but also on social criteria, e.g., community co-ownership etc.)*	Apart from the price criteria, **all** participants in the auction (including those participating in the general auction and those bidding for the reserved 300 MW) have to present a plan of impact that has to include:[226] - Description of the investment - Procurement strategy - Estimation of direct and indirect employment created during the installation and future operation of the project at a local, regional and national level. - Estimation of the impact in national, regional and local value chains (i.e., supplies, manufacturing components, transportation, etc.) - Circular economy strategy for the installation's components after their lifespan - Analysis of the carbon footprint of the installation - Social and environmental good practices that will be implemented during the construction and operation of the project. - Communication strategy to inform local citizens of the impacts and benefits of the installation - Plan to introduce local citizen participation in the project.
*Special **pricing rules** for RECs (e.g., uniform pricing in Germany, bonus payments in France)*	No special pricing rules for RECs, apart from the fact of having 300MW reserved for them, with the restriction in the competition from other entities that this entails.
Others	

[225] https://energia.gob.es/renovables/regimen-economico/Documents/Resoluci%C3%B3n%20de%208%20de%20septiembre%20de%202021,%20segunda%20subasta.pdf
[226] https://energia.gob.es/renovables/regimen-economico/Documents/Resoluci%C3%B3n%20de%208%20de%20septiembre%20de%202021,%20segunda%20subasta.pdf

Are the existing/proposed measures under section 3 sufficient to effectively facilitate the development of RECs? What should be improved?	All measures are assessed as positive and potentially effective (although their final impact must be evaluated later as most of the measures are now beginning to be implemented). As something that needs to be urgently improved, a regulatory framework must be developed, including a full transposition of RED II, to eliminate regulatory uncertainty. As additional possible measures with regards to investments[227]: - Contingency funds: create public or private-public contingency funds as collaterals in order for RECs to request loans in the traditional private financial system. - Premiums for RECs: for example; eliminating usage fees for the low-voltage grid for RECs, bonuses for private distribution companies whose low-voltage grid is being used by RECs, etc. - Advantageous public loans - Tax deductions: for example, eliminate VAT for costs of RECs, income tax deductions for REC members.
Which other accompanying support measures specifically targeting RECs do exist in your country (in addition to those mentioned above in sections 2 and 3; e.g., R&D programmes, regulatory sandboxes, others)?	None

[227] file://ecoserver/Datos/Users/Franciso%20Rueda/RECs/Documentos%20de%20inter%C3%A9s/guia_para-desarrollo-instrumentos-fomento_comunidades_energeticas_locales_20032019_0.pdf

4. Novel and promising policy measures

Do you know of any **novel or promising policy measures** on a national/regional/local level **in your country** which may serve as a model for other countries/regions/municipalities in order to facilitate the development of RECs? If possible provide a short description.	Many of the above-mentioned policy measures are very novel and innovative (most have not been implemented yet). Time will tell how impactful they are.
Do you know of any policy measures adopted **in other countries** which may serve as a **model for your country** in order to facilitate the development of RECs? If possible provide a short description.	No

5. Overall assessment

Where do you see the most **urgent gaps/needs for policy action**? Which elements of the enabling framework are of highest importance?	As stressed above, the most urgent gap is developing an elaborated normative framework, including a full transposition of RED II, so that regulatory uncertainty is eliminated. Apart from the normative aspect, legal/technical support and financial assistance are of the highest importance for the successful development of RECs in Spain.
Which actions should be taken at which level of government to put those priority elements into action?	The creation of a normative framework is, primarily, a responsibility of the national government and of the parliament. In terms of legal/technical support and advice as well as financial assistance, all levels of government can (and do) take action. As already mentioned, the component C7.R3 of the Recovery, Transformation and Resilience Plan lays down the action plan for the national government in

	terms of giving several types of support to RECs (information, planning, technical knowledge, administrative assistance, finance). Additionally, many regions have their own action plans for promoting the development of RECs (e.g., Andalucía, Valencia, Navarra, Madrid[228]). The same is true for many local municipalities, especially with respect to administrative/legal support.
Is there any strategic and coherent policy approach in promoting RECs noticeable? Do the different levels of government (national-regional-municipal) inhibit or reinforce each other when creating an enabling framework for RECs? How could coordination between the national and sub-national levels of government be improved?	Every administration level (national, regional, local) has their own action plans for promoting RECs. It is difficult to say if they reinforce each other. What seems clear is that they do not inhibit each other. Importantly, regional and local support varies from one place to another, with some territories not receiving any kind of support (apart from national) and some others having very involved local and regional administrations (in terms of administrative, technical and financial support). A cohesive policy approach with pre-established competencies for each administration level could be a good way of integrating the different policy approaches. For example, the national government could be in charge of the normative framework and financing pilot, innovative projects. Regional administrations could create a network of financial and tax incentives/subsidies for RECs, as well as departments for technical and administrative support. Local municipalities could be in charge of more providing specific administrative support to local RECs and could financially help by ceding municipal roofs or unused land.

[228] For Andalucia see https://www.agenciaandaluzadelaenergia.es/es/ayudas-la-financiacion/incentivos-para-energias-renovables-en-autoconsumo-almacenamiento-y-termicas-sector-residencial;https://www.gva.es/es/inicio/procedimientos?id_proc=21040&version=amp; for Valencia see https://www.gva.es/es/inicio/procedimientos?id_proc=21040&version=amp; for Madrid see https://arosaid.com/2021/11/08/madrid-incentivos-ligados-al-autoconsumo-y-almacenamiento-con-fuentes-de-energia-renovable-desde-16nov21/

In your view, does, the RED II cover all elements of an “enabling framework”? Are there any measures which are missing? Which additional measures do key stakeholders propose for your country?	Yes

Calibration table for quantitative assessments of transposition performance

Section 1: Definition and rights of RECs (RED II, Art. 2(16) and Art.22(2))

	0	1	2	3	4	5
Open participation (Participation in renewable energy projects should be open to all potential local members based on objective, transparent and non-discriminatory criteria)	Legislation ensuring open participation is neither in place nor planned.	Legislation ensuring open participation is in an early stage of development.	Legislation ensuring open participation is in an advanced stage of development/will soon be adopted; legislation addressing open participation is in place, but regulations are not in line with RED II provisions; some barriers still exist.	Legislation ensuring open participation is in place. Regulations are mostly in line with RED II provisions. However, a few barriers may exist.	Legislation ensuring open participation is in place. Regulations are fully in line with the RED II. Participation is open, based on objective, transparent and non-discriminatory criteria.	Legislation ensuring open participation is in place. Regulations are fully in line with RED II provisions. Participation is fully open and based on objective, transparent and non-discriminatory criteria. Complementary guidance/secondary legislation is in place.
Voluntary participation (right of members or shareholders to leave the REC or CEC)	Legislation ensuring voluntary participation is neither in place nor planned.	Legislation ensuring voluntary participation is in an early stage of development.	Legislation ensuring voluntary participation is in an advanced stage of development/will soon be adopted; legislation addressing voluntary participation is in place, but regulations are not or only partly in line with RED II provisions; some barriers still exist.	Legislation ensuring voluntary participation is in place. Regulations are mostly in line with RED II provisions. However, few barriers may exist.	Legislation ensuring voluntary participation is in place. Regulations are fully in line with RED II.	Legislation ensuring voluntary participation is in place. Regulations are fully in line with RED II provisions. Participation is fully voluntary. Complementary guidance/ secondary legislation on this issue is in place.
Effective control (RECs to be effectively controlled by shareholders or members that are located in the proximity of the RE projects that are owned and developed by that legal entity; not further specified in RED II)	Effective control has not been considered at all in legislation. No legislation is planned.	Legislation ensuring effective control is in an early stage of development.	Legislation ensuring effective control is in an advanced stage of development/will soon be adopted; legislation addressing effective control is in place, but effective control has not been further not specified; regulations are not in line with RED II provisions.	Legislation ensuring effective control is in place. Effective control has been fairly considered and at least partly specified. Regulations are mostly in line with RED II provisions; regulations may create minor barriers.	Legislation ensuring effective control is in place. Effective control has been considered well and has been further specified. Regulations are fully in line with RED II provisions.	Legislation ensuring effective control is in place. Effective control has been considered very well and has been further specified. Regulations are fully in line with RED II provisions. Complementary guidance /secondary

						legislation on this issue is in place.
Proximity (see above, effective control)	Proximity has not been considered at all in legislation. No legislation is planned.	Legislation addressing proximity is in an early stage of development.	Legislation addressing proximity is in an advanced stage of development/will soon be adopted; legislation is in place, but proximity has not been further specified; regulations are not in line with RED II provisions or create significant barriers for RECs.	Legislation addressing proximity is in place. Proximity has been fairly considered and at least partly specified. Regulations are mostly in line with RED II provisions; regulations may create minor barriers.	Legislation addressing proximity is in place. Proximity has been considered well and has been further specified. Regulations are fully in line with RED II provisions and do not create any barriers.	Legislation addressing proximity is in place. Proximity has been considered very well and has been further specified. Complementary guidance /secondary legislation on this issue is in place (e.g., technical or geographical specifications). Regulations are fully in line with RED II provisions and help facilitate the development of RECs.
Autonomy (to avoid abuse and to ensure broad participation, RECs 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)	Autonomy of RECs has not been considered at all in legislation. No legislation is planned.	Legislation addressing autonomy of RECs is in an early stage of development.	Legislation addressing autonomy of RECs is in an advanced stage of development/will soon be adopted; legislation is in place, but autonomy has not been further specified; regulations are not in line with RED II provisions or create significant barriers for RECs.	Legislation addressing autonomy is in place. Autonomy has been fairly considered. Regulations are mostly in line with RED II provisions; regulations may create minor barriers.	Legislation addressing autonomy is in place. Autonomy has been considered well and has been further specified. Regulations are fully in line with RED II provisions and do not create any barriers.	Legislation addressing autonomy is in place. Autonomy has been considered very well and has been further specified. Regulations are fully in line with RED II provisions and do not create any barriers. Autonomy has been considered very well with detailed specifications/guidance. Specifications are fully in line with the RED II provisions.
Primary purpose (to provide environmental, economic or social community benefits for its	The primary purpose of RECs has not been considered at all in legislation. No legislation is planned.	Legislation addressing the primary purpose of RECs is in an early stage of development.	Legislation addressing the primary purpose of RECs is in an advanced stage of development/ will soon be adopted; legislation is in place, but	Legislation addressing the primary purpose of RECs is in place. The primary purpose has been fairly considered. Regulations are mostly in	Legislation addressing the primary purpose is in place. The primary purpose has been considered well and has been further specified.	Legislation addressing the primary purpose is in place. The primary purpose has been considered very well with detailed

shareholders/members or for the local regions where RECs operate, rather than financial profits)			primary purpose has not been further specified; regulations are not in line with RED II provisions or creating significant barriers for RECs.	line with RED II provisions; regulations may create minor barriers.	Regulations are fully in line with RED II provisions and do not create any barriers.	specifications/guidance. Regulations are fully in line with RED II provisions and help to facilitate the development of RECs.
Key Activities (RECs are entitled to produce, consume, store, sell renewable energy)	Legislation ensuring that RECs are entitled to carry out the key activities is neither in place nor planned.	Legislation ensuring that RECs are entitled to carry out the key activities is in an early stage of development; only single key activities (e.g., production) are explicitly or implicitly allowed.	Legislation is in an advanced stage of development/will soon be adopted; only few of the key activities are allowed; legislation is in place but is not in line with RED II provisions; RECs face significant barriers.	Legislation ensuring that RECs are entitled to carry out the key activities is in place and regulations are mostly in line with RED II provisions; RECs may face minor barriers; most of the key activities are explicitly or implicitly allowed.	Legislation ensuring that RECs are entitled to carry out the key activities is in place. Or all key activities are explicitly allowed. Regulations are fully in line with RED II provisions. RECs barely face any barriers when carrying out the activities.	Legislation ensuring that RECs are entitled to carry out the key activities is in place. Additional regulations/ specifications and/or guidance have been developed. All key activities are explicitly allowed. Regulations are fully in line with RED II provisions and help to facilitate the development of RECs. RECs do not face any barriers.
Energy Sharing	Energy sharing has not been considered at all in legislation. No legislation is planned.	Legislation is in an early stage of development.	Legislation is in an advanced stage of development/will soon be adopted; legislation is in place but there are no further specifications; energy sharing is in principle possible but faces significant barriers.	Legislation ensuring energy sharing is in place. Energy sharing has been fairly considered in legislation. Regulations are mostly in line with RED II provisions; energy sharing faces some barriers.	Legislation ensuring that RECs are entitled to energy sharing is in place. Energy sharing has been considered well in the legislation. Regulations are fully in line with RED II provisions. Energy sharing barely faces any barriers.	Legislation ensuring that RECs are entitled to energy sharing is in place. Energy sharing has been considered very well in legislation. Additional regulations/ specifications and/or guidance have been developed. Legislation is fully in line with RED II provisions. Additional measures have been taken to facilitate energy sharing. The measures have model character for other regions/countries.

Access to all suitable energy markets both directly or through aggregation in a non-discriminatory manner	Access to all suitable energy markets has not been considered at all in legislation. No legislation is planned.	Legislation is in an early stage of development.	Legislation is in an advanced stage of development/will soon be adopted; access to all suitable energy markets has been considered in legislation but there are no further specifications; legislation is in place, but access is limited to some energy markets; access to suitable energy markets faces significant barriers.	Legislation ensuring access to all suitable energy markets is in place. Access to all suitable energy markets has been fairly considered. Regulations are mostly in line with RED II provisions. Or access to all suitable energy markets faces some barriers.	Legislation ensuring that RECs are entitled to access all suitable energy markets is in place. Access to all suitable energy markets has been considered well in the legislation. Regulations are fully in line with RED II provisions. Access to all suitable energy markets barely faces any barriers.	Legislation ensuring that RECs are entitled to access all suitable energy markets is in place. Access to all suitable energy markets has been considered very well in the legislation. Regulations are fully in line with RED II provisions. Additional regulations/ specifications and/or guidance have been developed. Access to all suitable energy markets does not face any barriers.

Section 2: Enabling framework pursuant to RED II, Art. 22(4) in combination with Art.22 (3)

	0	1	2	3	4	5
Assessment of existing barriers/potential of development	Neither the national nor any regional government has carried out/commissioned any assessment. No assessment is planned.	The national government has decided to carry out/commission an assessment. It is in an early stage of development. Or assessments have been elaborated or are planned by few regional governments.	The national government has started to draft/commission an assessment. The assessment is in an advanced stage of development. The assessment or parts of it will soon be published; assessments have been elaborated by several regional governments.	The national government has carried out/commissioned an assessment. But the assessment has not or only partly been made public; assessments have been elaborated by most regional governments.	The national government has carried out/commissioned an assessment. The assessment has been made publicly available; assessments have been elaborated and made publicly available by all regional governments.	The national government has carried out/commissioned an assessment. The assessment has been made publicly available. In addition, assessments have been carried out/ commissioned by some regional governments.
Regulatory and administrative barriers; unfair, non-proportionate and non-transparent procedures	RECs face regulatory and administrative barriers in the field of spatial planning, approval processes or in other fields; RECs are confronted with unfair, non-proportionate and non-transparent procedures. No legislation has been developed or is planned to improve the situation.	RECs face regulatory and administrative barriers in the field of spatial planning, approval processes or in other fields; RECs face unfair, non-proportionate and non-transparent procedures. Legislation to improve the situation is in an early stage of development.	RECs face regulatory and administrative barriers in the field of spatial planning, approval processes or in other fields; RECs partly face unfair, non-proportionate and non-transparent procedures. Corresponding legislation is in an advanced stage of development/will soon be adopted.	RECs face regulatory and administrative barriers in the field of spatial planning, approval processes or in other fields; RECs face unfair, non-proportionate and non-transparent procedures. Legislation is partly in place/some measures have been taken to improve the situation. Further measures are necessary.	RECs face only few regulatory and administrative barriers in the field of spatial planning, approval processes or in other fields. RECs are mostly subject to fair, proportionate and transparent procedures; legislation is in place/measures have been taken to improve the situation. Few additional measures may be needed.	RECs face no regulatory and administrative barriers in the field of spatial planning, approval processes or in other fields. RECs are subject to fair, proportionate and transparent procedures. Effective measures have been taken. No additional measures are currently necessary to improve the situation.
Integration in spatial planning	There are no provisions for the integration and deployment of RECs in national, regional or local level spatial planning. No legislation/measures have been developed or	Provisions for the integration and deployment of RECs either in national, regional or local level spatial planning are planned or in an early stage of development.	Provisions for the integration and deployment of RECs either in national, regional or local level spatial planning are in an advanced stage of	Single provisions for the integration and deployment of RECs either in national, regional or local level spatial planning are in place. Further provisions are needed.	There are numerous provisions for the integration and deployment of RECs in both national and subnational spatial planning.	Spatial planning on all levels of government is an effective tool to facilitate the deployment of RECs.

	are planned to improve the situation.		development/will soon be adopted.			
Integration in planning of urban infrastructure	There are no provisions for the integration and deployment of RECs in planning of urban infrastructure. No legislation/measures have been developed or are planned to improve the situation.	Provisions for the integration and deployment of RECs either in planning of urban infrastructure are planned or in an early stage of development.	Provisions for the integration and deployment of RECs in planning of urban infrastructure are in an advanced stage of development/will soon be adopted.	Single provisions for the integration and deployment of RECs in planning of urban infrastructure either on national or subnational levels are in place. Further provisions are needed.	There are numerous provisions for the integration and deployment of RECs in both national and subnational planning of urban infrastructure.	Urban infrastructure planning on all levels of government is a highly effective tool to facilitate the deployment of RECs.
Provisions ensuring cooperation with DSO to facilitate energy transfers within RECs	No legislation/ provisions have been developed or are planned.	Legislation/provisions are planned or in an early stage of development.	Legislation/provisions are in an advanced stage of development/will soon be adopted; legislation/provisions are in place but are not effective or face considerable barriers.	Legislation/provisions are partly in place. Legislation/provisions are fairly in line with RED II provisions; cooperation faces certain barriers and further provisions are needed.	Legislation/provisions are in place. Legislation/ provisions are mostly in line with RED II provisions. Cooperation faces only minor barriers.	Legislation/provisions are in place. Legislation/ provisions are fully in line with RED II provisions and help to facilitate the development of RECs. Cooperation does not face any barriers. The applied measures have model character for other regions or countries.
Transparent Cost-Benefit Analysis of distributed energy sources to be developed by national competent authorities	National authorities have not developed any transparent cost-benefit analysis. No analysis is planned.	National authorities are planning to develop a transparent cost-benefit analysis; such an analysis is in an early stage of development.	A transparent cost-benefit analysis is in an advanced stage of development; a cost benefit analysis has been published but is not transparent (and not publicly available).	National authorities have developed a cost-benefit analysis. However, the analysis is only partly transparent (and only partly publicly available).	National authorities have developed a transparent cost-benefit analysis. The analysis has been fully published.	National authorities have developed a transparent cost-benefit analysis. The analysis has been fully published. It has model character for other regions/countries.
Cost-reflective network charges, other charges, levies and taxes to ensure that RECs contribute in an adequate, fair and balanced way to the overall cost sharing of the system.	Although there is a need for action, no legislation/measures are planned.	There is a need for action. Legislation/ measures are planned or in an early stage of development.	There is a need for action. Legislation/ measures are in an advanced stage of development/will soon be adopted.	Legislation/measures are partly in place. The issues have been fairly considered but face still certain barriers; regulations are at least partly ineffective. Further measures are needed.	Legislation/provisions measures are in place. RECs do usually not face any unfair, non-proportionate and non-transparent network charges, other charges, levies and taxes. Network charges are	RECs do not face any unfair, non-proportionate and non-transparent network charges, other charges, levies and taxes. RECs contribute in an adequate, fair and balanced way to the

					mostly cost-reflective and RECs may contribute in an adequate, fair and balanced way to the overall cost sharing of the system. Few additional measures may be needed.	overall cost sharing of the system. The applied measures have model character for other regions or countries. No further measures are currently necessary to improve the situation.
Non-discriminatory treatment with regard to their activities, rights and obligations as final customers, producers, suppliers, DSOs, or as other market participants	Although there is a need for action, no legislation/measures are planned.	There is a need for action. Legislation/ measures are planned or in an early stage of development.	There is a need for action. Legislation/ measures are in an advanced stage of development/will soon be adopted.	Legislation/measures are partly in place. The issues have been fairly considered but still face certain barriers or regulations are at least partly ineffective. Further measures are needed.	Effective legislation/measures are in place. RECs do usually not face any discriminatory treatment. Few additional measures might be needed.	RECs do not face any discriminatory treatment. The applied measures have model character for other regions or countries. No further measures are currently necessary to improve the situation.
Accessibility for all consumers including low-income or vulnerable households	Accessibility for all consumers including low-income/vulnerable households has not been addressed in legislation at all. No legislation/measures are planned.	Accessibility for all consumers including low-income/vulnerable households has not been considered in legislation. Legislation/ measures are planned or in an early stage of development.	Legislation/ measures are in an advanced stage of development/ will soon be adopted.	Accessibility for all consumers including low-income/vulnerable households has been partly considered in legislation; accessibility has been considered but without any further specifications; there are still barriers. Further measures are needed.	Accessibility for all consumers including low-income/vulnerable households has been fully ensured in legislation. There are dedicated provisions in place. Their effectiveness is unclear yet.	Accessibility for all consumers including low-income/vulnerable households is broadly ensured. There are several dedicated provisions/ legislations in place which proved their effectiveness. The applied measures have model character for other regions or countries
Access to financing (e.g. guarantee, grant-to-loan schemes/revolving funds to support upfront and pre-construction costs, low-interest loans for investments, special tax treatment of RECs or members of RECs, etc.)	Although there is a need for action, no legislation/measures are planned to facilitate access of RECs to financing.	There is a need for action. Legislation/ measures to improve the access to financing are planned or in an early stage of development.	Although RECs have access to several financing instruments, there is a need for action. Legislation/measures to further improve access to financing is in an advanced stage of	RECs have fair access to different financing instruments. Legislation/measures to improve access to financing are partly in place, but further measures are needed.	RECs have good access to financing instruments covering different project phases. Effective legislation/measures are in place. Only few additional measures might be needed.	RECs have very good access to a broad set of financing instruments covering different project phases. Measures are effective in facilitating the development of RECs. No further measures are currently needed.

			development/will soon be adopted.			The applied measures have model character for other regions or countries
Access to information	Although there is a need for action, no legislation/measures are planned to facilitate access of RECs to information.	There is a need for action. Legislation/ measures to improve access are planned or in an early stage of development.	Although RECs have access to relevant information, there is a need for action. Legislation/measures to further improve access to information is in an advanced stage of development/will soon be adopted.	RECs have fair access to different sources of information. Legislation to ensure access to information is in place, but some additional measures are needed.	RECs have broad access to numerous sources of information. Effective legislation/measures are in place. Only few additional measures might be needed. The institutional infrastructure is well developed (e.g., intermediaries, networks, one stop shops, energy agencies, competence centers, info hubs for RECs).	RECs have very broad access to numerous sources of information. Measures are effective in facilitating the development of RECs. The institutional infrastructure is highly developed. There are numerous intermediaries, networks, one stop shops, energy agencies, competence centers, info hubs for RECs) both on the national and regional level. The applied measures have model character for other regions or countries

Section 3: Support schemes and incentives

	0	1	2	3	4	5
Consideration of specificities of RECs in RES support schemes (RED II Art. 22(7))	Specificities of RECs are not considered in RES support schemes at all. No legislation/ measures have been taken or are planned.	No consideration of RECs in RES support schemes, but measures are planned or in an early stage of development	No consideration of RECs in RES support schemes, but measures are in an advanced stage of development/ will soon be adopted.	Partial consideration of RECs in RES support schemes (e.g., for some technologies)	Broad consideration of RECs in RES support schemes.	Broad consideration of RECs in RES support schemes. Measures are effective in facilitating the development of RECs. The applied measures have model character for other regions or countries
Dedicated support schemes for RECs	No dedicated support schemes for RECs, neither on national nor regional level. No legislation/measures are planned.	Dedicated support schemes for RECs, either on national or regional level are planned/in an early stage of development.	Dedicated support schemes for RECs, either on national or regional level, are in an advanced stage of development/will soon be adopted.	Dedicated support schemes for RECs are partly (e.g., for some technologies) in place, either on national or regional levels.	Dedicated support schemes for RECs are in place on national and partly on regional level. They cover a broad spectrum of technologies.	Dedicated support schemes for RECs are in place both on national and regional levels. Measures cover a broad spectrum of technologies and are effective in facilitating the development of RECs. The applied measures have model character for other regions or countries
Political targets for RECs at national and regional level	There are no quantitative policy targets for the development of RECs, neither on the national nor sub-national level. No targets are planned.	Quantitative policy targets at national or sub-national levels are planned/in an early stage of development.	Quantitative policy targets for RECs at national or sub-national level are in an advanced stage of development/will soon be adopted.	Quantitative policy targets for RECs exist on the national or sub-national level.	Quantitative policy targets for RECs exist on the national level and partly on sub-national level.	Quantitative policy targets for RECs exist both on the national level and broadly on a sub-national level.
Tax reliefs, other fiscal measures	No tax reliefs or any other fiscal measures to facilitate the development of RECs are existing. No steps have been taken or are planned.	Tax reliefs or other fiscal measures to facilitate RECs are planned/in an early stage of development.	Tax reliefs or other fiscal measures to facilitate RECs are in an advanced stage of development/will soon be adopted.	Tax reliefs or other fiscal measures to facilitate RECs are partly available either on national or regional levels.	Tax reliefs or other fiscal measures to facilitate RECs are broadly available either on national or regional levels.	Tax reliefs or other fiscal measures to facilitate RECs are broadly available both on national and regional levels. Measures are effective in facilitating the development of RECs.

Reduced network charges and similar incentives	No reduction of network charges or similar incentives for RECs. No steps have been taken or are planned to change the situation.	Reduction of network charges or similar incentives are planned/in an early stage of development.	Reduction of network charges or similar incentives are in an advanced stage of development/will soon be adopted.	Reduction of network charges or similar incentives are partly in place but face certain barriers.	Reduction of network charges or similar incentives are in place. Effectiveness is unclear yet.	Reduction of network charges or similar incentives are in place. Measures are effective in facilitating the development of RECs. The applied measures have model character for other regions or countries

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