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Advancing Renewable
Energy Communities

ENABLING RENEWABLE ENERGY COMMUNITIES

Close, but not quite there

The deadlines for transposing the Integrated Electricity Market Directive (IEMD) and the recast Renewable Energy Directive (RED II) into Member State legislation have long passed. In the meantime, tracking the relevant developments is, on the one hand, thrilling, as countries carry out fundamental changes to their energy market designs to accommodate a more citizen-led energy transition. On the other hand, it is also frustrating, because the necessary changes and **enabling frameworks continue to develop at very different speeds, with no Member State having achieved the degree of transposition**, which would satisfy the European requirements.

Could the deadlines for transposition have been too ambitious considering the political, technical and economic complexities of the national energy markets? Despite all this, Renewable Energy Communities (RECs) continue to develop and citizens, SMEs, public authorities and other energy market actors are waiting (and calling) for the creation of urgently needed enabling frameworks.

As the COME RES Report [“Comparative Assessment of enabling frameworks for RECs and Support Scheme Designs”](#) puts it, “The question of whether a country is on the right track cannot be measured by a literal

implementation of the relevant articles of RED II, but rather by a conducive market environment, a successful embedding in the national context and by the establishment of suitable and supporting framework conditions.”

This brief, therefore, presents a snapshot of the progress on these elements since February 2021 pertaining to Art. 2 and Art. 22 of the RED II. It provides

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Based on [Deliverable 7.1 “Comparative Assessment of Enabling Frameworks for RECs and Support Scheme Designs”](#) of the COME RES project by Michael Krug and Maria-Rosaria Di Nucci, Freie Universität Berlin

an overview of how, generally, the transposition of the relevant definitions, the promotion of enabling frameworks as well as the creation of support schemes and incentives is progressing. It also highlights examples from selected Member States.

For a more detailed overview you can refer to the “[Comparative Assessment of enabling frameworks for RECs and Support Scheme Designs](#)”, produced by the COME RES project, which provides a very comprehensive account for each of the nine COME RES countries of Belgium, Germany, Italy, Latvia, Netherlands, Norway, Poland, Portugal and Spain.

DEFINITION OF RECs

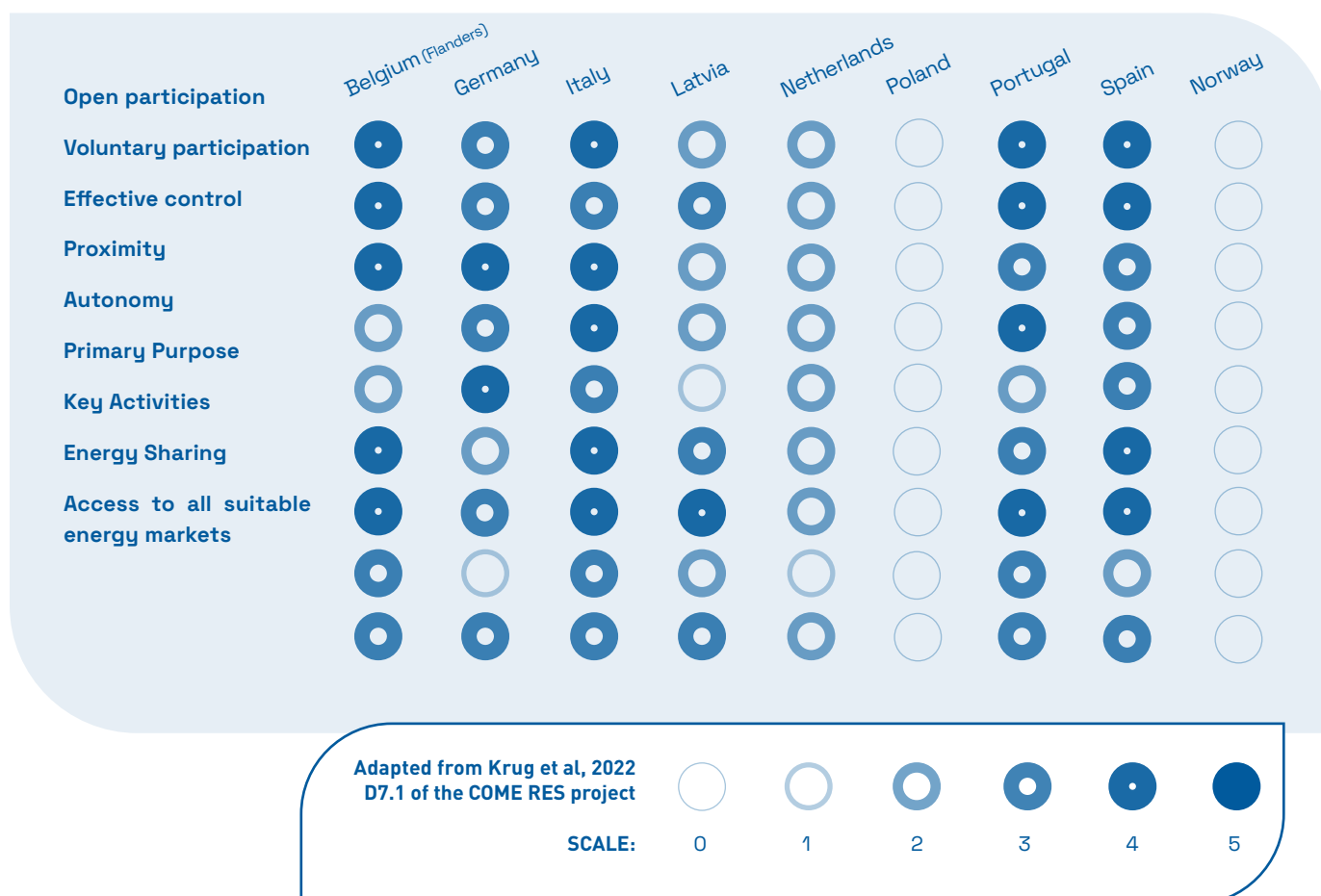
With the exception of Poland, legal definitions of RECs are in place in the other COME RES countries and at least partly in compliance with the criteria provided in Article 2(16) of the RED II. However, a literal transposition of the European definition seems to be the most favoured way of doing things. Norway has no definitions for RECs, but the country is not part of the EU and does not follow the same timeline. The good

progress that most COME RES countries have made in introducing national definitions for RECs and Citizen Energy Communities (CECs), does not necessarily extend to the creation of enabling frameworks and support schemes.

There exist considerable differences between the countries on how the **definitions** are transposed and how RECs are being legally defined. While e.g. the Netherlands intend to merge both RECs and CECs into one single, concept called “energy community”, other cases, such as Italy create separate legal definitions for both concepts. Germany uses the pre-existing legal term “citizen energy companies” as its REC-equivalent which is limited to the technological scope.

The graph below provides a layered overview of the state of transposition with regard to the REC definitions in the 9 COME RES countries. The scale of 0-5 indicates the degree to which countries have put in place legislation pertaining to the definitions and whether barriers still exist. The values are based on average values based on individual assessments for each country.¹

¹ For the detailed explanation of the comparative assessment rating, please consult the table contained in the [annex of D.7.1](#)



Of the Member States analysed, several show much flexibility when it comes to the legal forms. However, at minimum all guarantee that creating profit is not the REC's main activity and that social benefit is ensured.

IN LATVIA...

the legal form of a REC can be very diverse, but in cases where the REC registers as a capital company, the statutes of the company should ensure that the company goal corresponds to the purpose of the REC. The profit shall not be paid as dividends, but shall be reinvested to meet the objectives defined in the statutes.

Open and voluntary participation has been explicitly ensured in most countries with membership being restricted to natural persons, SMEs and local authorities. In the Netherlands, members of a REC are not allowed to produce, store or sell energy as their main economic activity. Other countries impose similar restrictions on the participation of private companies.

Effective control is mostly 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 kilometers around the plant.

The requirement for members of RECs to be located in its **proximity** resulted in a significant amount of interpretation, as the Directive did not provide further specifications. Consequently, several governments decided to specify proximity rules with follow-up legislation by either restricting proximity geographically and/or technically.

The elements of effective control and proximity are inherently linked as RED prescribes RECs to "be effectively controlled by shareholders or members that are located in the proximity of the REC projects that are owned and developed by that legal entity."

IN GERMANY...

proximity has been defined geographically to align with the element of effective control while in most other countries a technical component has been added.

IN ITALY, PORTUGAL AND SPAIN...

additional requirements arise with regard to how members have to be connected on the low, medium or high voltage grids respectively.



In most analysed cases, **autonomy** has been included as a governance principle of RECs, but legislation does not contain any specifications of what this means at national level. It is likely, the principle of autonomy will be linked to effective control. In Germany, a member or shareholder of a 'citizen energy company' is not allowed to hold more than 10% of the voting rights. The Netherlands, is looking into identifying the one-person-one-vote principle for cooperatives and mentions potential for setting maximum shares for entities/groups of entities, or further distribution of voting rights. However, it is not yet clear if this will really be introduced as part of the national regulatory framework for RECs in the country.

The **primary purpose of a REC** has mostly 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.

Overall, countries consider RECs to be operable with **heating/cooling and renewable gas sectors**. This is with the notable exception of Germany, where, although no legal connection between RECs and heating/cooling is made, many German energy communities already engage in such activities. Sector coverage can also be ensured via tendering specifications as is the case in Spain.

MARKET ACTIVITIES

RECs are expected to become an integral part of Member States' energy market landscapes. In order for this to happen, a series of rights pertaining to the market activities needs to be in place. Overall, progress can be seen, but some countries clearly struggle with

providing RECs with more capacity to act as full energy market participants.

Most countries seem to explicitly allow RECs to produce, consume, store and sell renewable energy. In Germany, however, such activities, while present, appear to exist in a grey zone as many citizen energy companies engage in such activities, although this is not explicitly allowed (or discouraged) in legislation. Poland already has had an existing enabling framework for "energy clusters" and "energy cooperatives", but has not transposed the provisions for RECs and the Polish RES Act imposes considerable restrictions. In Norway, while RECs have not been defined, new regulations are expected in 2022, to allow the sharing of electricity within the same property (not between properties though).

Only in a few countries are RECs explicitly or implicitly allowed **to own and operate electricity distribution networks**.

IN GERMANY...

a few such initiatives exist despite a lack of a full transposition of RED II legislation. In the Netherlands, the rights are in place, but energy communities do not seem interested in acting as DSOs. A few examples of CECs exist in Portugal which own and operate distribution networks.



With the exception of Germany, Poland and Norway, all analysed countries are on track to facilitate **collective self-consumption (CSC)** in a building as well as on a multi-apartment / buildings level. The main differences between countries' schemes are related to the extent to which grid fees, taxes, VAT and public obligations must be paid.

Collective self-consumption is also directly linked to the concept of energy sharing. Spain e.g. allows for energy sharing, but only within the rights and responsibilities falling under the CSC scheme. Generally, a positive tendency can be observed in the countries to allow energy sharing, although it is not uncommon to see it being introduced slowly.

SPAIN...

Spain has already an advanced framework for CSC allowing the sharing of electricity among customers. In fact, most of the existing RECs, due to the lack of a complete transposition of RED II, use the legal framework for collective self-consumption. Such schemes, however, are limited to a radius of 500m around the generation source and need to be located in the same grid segment below the same low voltage transformer station. No grid fees are then charged, although VAT and other levies apply. At regional level, several autonomous communities and municipalities provide incentives to the establishment of self-consumption schemes through grants, subsidies and tax exemptions.

A SIMILAR SITUATION CAN BE OBSERVED IN PORTUGAL...

where collective self-consumption does also not come with the requirement to establish a legal entity leading to this type of initiative to be seen by many as an alternative to RECs, with simpler procedures.

BELGIUM...

Belgium is setting up a legislative framework for energy sharing. Since 1 January 2022, collective self-consumption within one building has been possible. Since 1 July 2022 peer-to-peer trading has been allowed. In a later phase (from 1 January 2023), it will become possible for energy communities to share energy between members of a 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 and one with a local authority / social service with a vulnerable household. 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...

energy can be shared within the same market area, as long as sharing parties are connected to the same primary substation. There exists an economic incentive for energy sharing. The incentive is based on electricity produced by the plant, or on the portion of its production which is fed into the grid. RECs obtain 110 EUR/MWh for the production of electricity plus 9 EUR/MWh as a reimbursement of costs not incurred for the use of the electricity grid.



ENABLING FRAMEWORKS

To date, many activities that RECs and CECs are entitled to carry out are not yet feasible in many COME RES countries, e.g. due to a lack of suitable market regulation, technical constraints (e.g. poor endowment of consumers with smart meters) or poor availability of relevant data. 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.²

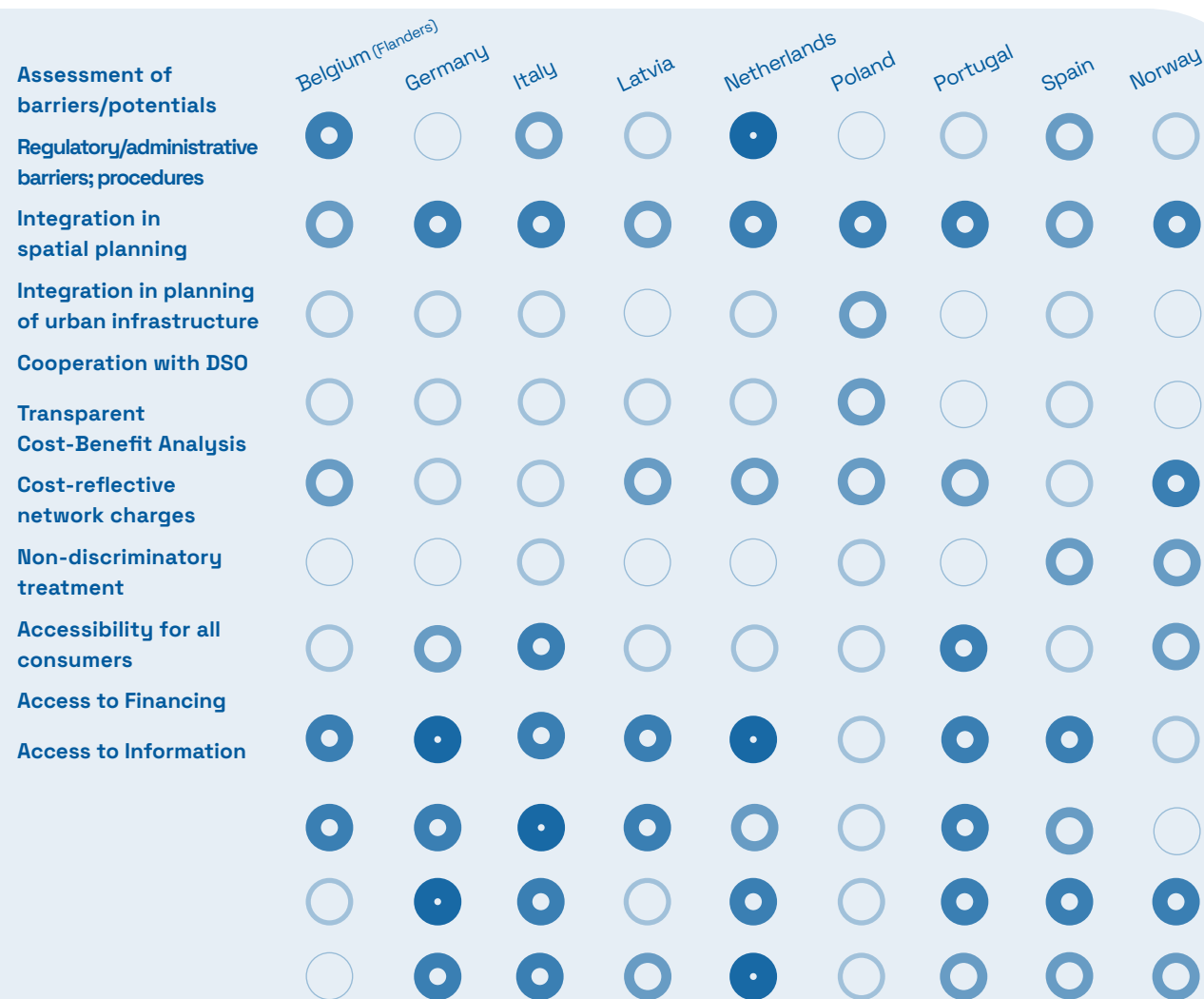
Member States are progressing with the creation of the necessary enabling frameworks although not necessarily at the required speed.

A long list of unjustified barriers for RECs continues to exist, preventing them from becoming more independent

and active market actors. This ranges from **technical barriers** (e.g. related to the grid and energy sharing), but also to the **high complexity** of technical, administrative and unnecessarily high licensing processes. A simple **lack of knowledge and expertise** among citizens and public authorities, a lack of human resources and **insufficient access to finance** are all issues, which need to be addressed. In many COME RES countries, RECs also continue to be hampered by the **prolonged uncertainty** due to the incomplete transposition of RED II.

The following diagram shows the degree to which the nine COME RES countries have created legislation stipulating the development of enabling frameworks.

² More information on the barriers for RECs can be found in COME RES Deliverable 2.3 "Synthesis case studies of drivers and barriers"



Adapted from Krug et al, 2022
D7.1 of the COME RES project

SCALE:



All COME RES countries face the risk that sufficient control of the entities that label themselves as “energy communities” is lacking. At the same time, in all countries RECs continue to be hampered by too complex licensing and registration procedures.

In order to ensure proper access by RECs to the grid and allow them to carry out their activities, it is essential that Distribution System Operators (DSO)s cooperate. In most cases, no specific provisions encouraging this cooperation were found with the notable exception of Belgium (Flanders), the Netherlands and Portugal.

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 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.

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.

There is little evidence to be found that COME RES countries set up **preferential network charges** for RECs. This is likely to be over concerns that preferential treatment for members of REC might have a negative impact on those who are not part of an energy community. The notable exception to this is Portugal where RECs and collective self-consumption schemes are exempted from the grid tariffs under certain conditions. Italy provides financial incentives for shared energy.



Specific **discriminatory treatment** can still be observed. In Poland energy cooperatives are restricted to rural and rural-urban municipalities and the Spanish rules pertaining to the restriction of RECs to the low voltage grid or to 500 meters from the generation sources could be considered discriminatory.

Special funding schemes for RECs are often 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 most countries, it is planned to make **dedicated financial support** available to energy communities.

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.

ITALY...

provides financing interest-free up to 100% of eligible cost for the development of energy communities in small municipalities. The National Recovery and Resilience Plan will provide more than 2 billion Euros to install 2,000 MW of new electricity generation capacity in municipalities with fewer than 5,000 inhabitants, especially those most at risk of depopulation.

PORTUGAL AND SPAIN...

also set up funding lines for energy communities through their National Recovery and Resilience Plan.

IN GERMANY...

the federal government has decided to set up a financial support scheme for citizen energy companies in the area of wind energy inspired by similar activities on the regional level.

Generally, **participation** is explicitly open to all consumers. Legislation in some countries like Italy and Portugal even explicitly mentions low-income and vulnerable households. The Spanish 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 electricity self-consumption should be considered. In several countries, some of the existing energy cooperatives are already actively working on measures to facilitate the involvement of low-income and vulnerable consumers.



In addition to this financial support, **capacity building and access to information** is urgently required. 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.

At the same time, public authorities, such as municipalities, profit greatly from dedicated regulatory and capacity-building support. However, in most analysed countries, specific regulatory and capacity-building support for public authorities is not available.

IN SPAIN ...

dedicated Community Transformation Offices and the funding line 'CE-Aprende' will facilitate access to information and promote the concept of RECs. In terms of legal/technical support, the 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 SPAIN ...

guidance has been prepared for local authorities. Moreover, the planned funding lines 'CE-Aprende' and 'CE-Oficinas' 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. In Germany, such support is often provided by the federal state governments e.g. through regional energy agencies.

THE LATVIAN MINISTRY OF ECONOMICS ...

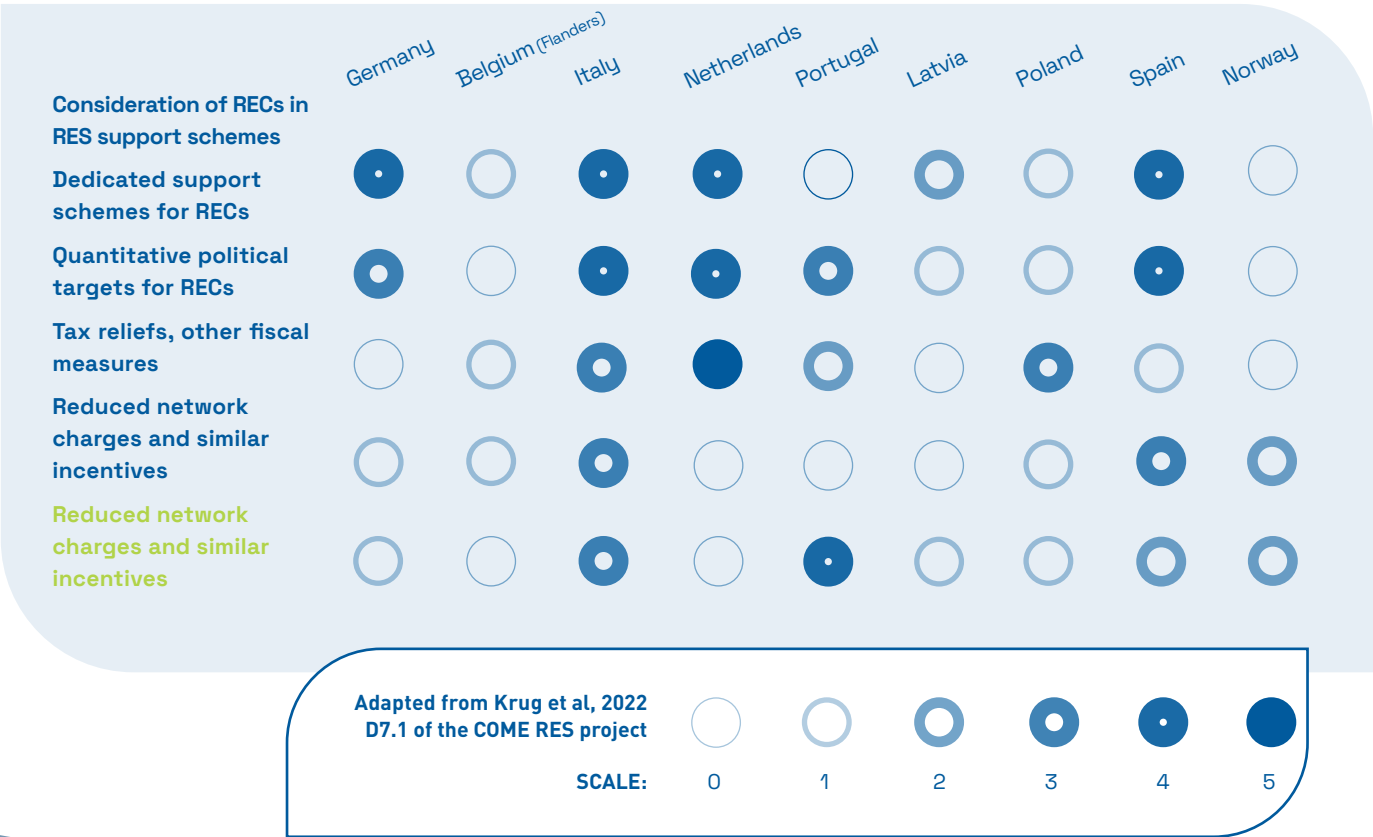
is planning to publish dedicated guidelines on energy communities including recommendations for public authorities. Portugal might see similar guidelines in the future .



SUPPORT SCHEMES AND INCENTIVES

Member States are gradually setting up support schemes for RECs although the speed and exact form this takes differs. In Spain and Italy the recent Recovery and Resilience Plans incorporate REC support

as part of their renewable energy promotion strategy. In Portugal support will be provided through the latest financing programme. The following graph represents the extent to which the nine countries have implemented relevant support schemes and incentives.



In recent years, there has been a considerable shift to remuneration through **competitive bidding schemes or auctions**. While generally succeeding in reducing the price/kWh of renewable energy, smaller actors, such as energy communities have struggled to keep up in such a highly professionalized and competitive environment. It comes as no surprise then that RED II requires Member States to consider the specificities of RECs in RES support scheme designs to ensure they can participate on an equal footing.

THE AUCTIONING SCHEMES OF GERMANY, SPAIN AND BELGIUM...

are becoming more inclusive of RECs. In the German case, 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).

In Spain, special bidding windows have been created exclusively for 'citizen-led, distributed PV generation projects', which fulfil certain eligibility criteria. The Netherlands has a special feed-in premium for RECs called the "Cooperative Energy Generation" (SCE) subsidy.

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 on-shore 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.

Setting specific **political objectives/targets for RECs** would also send a strong signal that energy communities will be supported in the long run. Only a 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.

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 and the "Energy Policy of Poland until 2040".

In some countries like Germany, Italy, the Netherlands and Spain, the **regional and municipal levels** play 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. Due to the significant degree of influence of the regional and municipal levels on REC development and siting, there are clear indications that **multi-level dialogue and cooperation** between the governance levels is going to increase in most countries. Several Italian regions are developing their own regional legal frameworks for supporting RECs. The Netherlands follows a polycentric approach in which 30 energy regions are responsible for supporting RECs.



OUTLOOK

Many positive developments have emerged since our review of the transposition progress in February 2021. It cannot be denied that several COME RES countries under scrutiny increasingly recognize the rights of RECs as energy market players although many barriers remain. Collective self-consumption and energy sharing, key cornerstones of allowing REC members to directly enjoy their produced energy, are on the rise, but not everywhere. It is taking a significant amount of time in the COME RES countries to make the required changes to their energy markets.

While encouraging changes can be observed, this is not at the same pace and levels of commitment across the board. Some countries can look back on a long tradition

of community energy, others are exploring such initiatives as a relative novelty. It is therefore positive to see that even some countries with less historical experience seem to be becoming very active in creating the necessary conditions for collective energy actions to thrive.

It is also very evident that a simple copy-pasting of the specifications of the relevant RED II articles was never a serious option, given the larger and finer differences between Member States' energy governance and physical infrastructure. Given the huge delay with the transposition, this does raise the question whether EU provisions, terms and deadlines sufficiently take such differences as well as the complexity and inertia of national energy markets into account.

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