



**COME
RES**

Advancing Renewable
Energy Communities

Advancing Renewable Energy Communities in Europe

**Affordable Energy.
Local Ownership. Resilience.**

www.come-res.eu

Title →

Advancing Renewable Energy Communities in Europe: Affordable Energy. Local Ownership. Resilience.

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About the project →

COME RES is a Horizon2020 project that aims to increase the share of renewable energy in the electricity sector. To do so, the project focusses on advancing renewable energy communities in nine European countries learning from regions with advanced community energy development and supporting target regions with the potential to further develop energy communities.

Learn more →

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Foreword

Renewable energy communities (RECs) can play an important role in the transition to a low-carbon society by increasing the share of renewables in the energy mix, but also by providing flexibility through balancing energy supply and demand at the local level, reducing costs and creating local value added. In line with much research on social acceptance of renewable energy, COME RES highlighted that local ownership and local benefits are important dimensions for social acceptance as they generate trust and influence over processes. Thus, community energy – and specifically RECs – provide a fertile terrain for a bottom-up transformation of the energy system and make key contributions to enhancing the decentralisation of the energy system.





In the course of the COME RES project, 16 partners from Belgium, Germany, Italy, Latvia, the Netherlands, Norway, Poland, Portugal and Spain analysed barriers, drivers, potentials, good practices, business models and transfer possibilities as well as policy developments with the ultimate goal being to facilitate RECs mainstreaming and supporting the implementation of so-called enabling framework.

The provisions to stimulate the uptake of RECs contained in the revised Renewable Energy Directive (RED II) require all Member States to mainstream community energy by providing enabling frameworks for RECs. This represents a tremendous driver, but regulatory complexities associated with community energy are not easy to master. With the help of stakeholder desks set up in all nine countries consisting of the project partners and committed energy communities, cooperatives, municipalities, associations, public authorities, market and policy actors, COME RES has reviewed critical barriers that hold back RECs. This was completed with a comprehensive analysis of the current state of transposition of the RED II as well as policy recommendations to EU, national and regional policy makers.

A peculiarity of our project is its specific focus on a number of target regions in the nine countries, where community energy has the potential to be further

developed, and model regions, where community energy is at a more advanced stage of development. Over the last thirty months, COME RES analysed political, administrative, legal, socioeconomic, spatial and environmental characteristics, and the reasons for the relatively slow deployment of RECs in these target regions. Adjustments in planning and participation practices as well as ownership models require time. Local authorities often face time, informational and staff constraints. We, in COME RES, reflected on all this, selected transferable best practices, elaborated four transfer roadmaps and four action plans, drew policy lessons and formulated recommendations also at the regional level.

This publication underlines how COME RES countries can count on a wealth of experiences and innovative solutions at local and regional level and how elements of them can be easily adapted to other contexts and transferred elsewhere and thus contribute to a more resilient and inclusive energy system. We show why RECs are important vehicles to support the in-depth transformation of the economy and society to achieve climate neutrality in a way that both takes account of national conditions and social justice. Through local ownership, collective self-consumption and energy sharing, RECs are proving to be effective in reducing people's energy costs while also increasing acceptance of renewable energy infrastructure. This is what we mean with "connecting long-term visions with short-term actions" – a slogan we have chosen for COME RES.

I invite readers, in particular policy makers, energy communities, associations, energy agencies, public authorities, market actors and interested citizens to be inspired by solutions presented here and to consider how RECs can become synonymous with local value creation and can be promoted in a way that enhances participatory and inclusive planning procedures.

Dr. Maria Rosaria Di Nucci
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The power of community in times of energy crisis

Citizens in Europe and elsewhere are facing unprecedented energy prices. Many struggle to make ends meet while a significant number of energy market players in 2022 made record windfall profits on the backs of end-consumers.

At the same time, governments, at different levels, tried to master multiple crises by implementing short-term measures to reduce energy cost for households and SMEs.

While these were and are still necessary, they do only provide temporary relief and are not suitable for the long run. The present crisis shows that it is imperative to focus on a decentralised energy model, based on renewables, storage and smart grids in which consumers take an active role in the energy system. This model is sustainable not only environmentally, but also economically and socially. Yet, paradoxically, the negative effects of an energy crisis materialize primarily within local communities.

Never before has it been so blatantly clear that locally-oriented energy models are better suited to provide energy to citizens in a fair and transparent manner. Being less dependent on the volatility of the European energy market, local energy solutions can provide renewable energy to end-consumers at cost, as well as services which are more tailored to the needs and specificities of local realities.

These models are in fact rooted in the local community. RECs are a tried and tested method to provide a just and inclusive energy transition. Through local ownership, collective self-consumption and energy sharing, renewable energy communities are proving to be effective in reducing people's energy costs while also increasing acceptance of renewable energy infrastructure. The motivations to set up an energy community differ, but nearly always there is an inherent connection between the local sense of place and of community and a desire for "reclaiming" or taking ownership of the energy system. This also extends to lowering energy bills for vulnerable members of the community without imposing top-down solutions on them. The intrinsic democratic and non-profit orientation of RECs makes such solutions possible.

Throughout this brochure, "spotlights" will present a wealth of experience from the COME RES countries and act as showcase for innovative solutions on how RECs are being promoted.

SPOTLIGHT

ZuidrAnt

The REC ZuidrAnt in Flanders, Belgium was founded in 2013 after a series of local events in the neighbouring cities and municipalities of Antwerp brought together a group of engaged citizens who were already involved in several groups to improvise their communities' sustainability (e.g. repair cafes, climate events, information event etc). Apart from supplying/sharing of local renewable electricity, the cooperative creates local added value by "unburdening" citizens through the organisation of joint purchasing of solar panels, home batteries, energy savings advice and renovation support. ZuidtrAnt also actively cooperates with public welfare centers, social housing companies and other non-profit organisations which work with people in need.



SPOTLIGHT

Grenzland-Pool

Grenzland Pool is a pool of community energy projects in North Frisia, Germany, including five community wind farms, solar farms, green hydrogen projects as well as other community projects. As one of the five community wind farms, the Grenzstrom Vindtved farm is a product of the local communities, especially the municipal councils and farmers' efforts. The operating company provides in-kind benefits to local communities, social associations and initiatives. A foundation has been set up to support social purposes and energy-saving measures locally. Special attention is being paid to providing benefit to vulnerable households which cannot directly participate, e.g. due to financial constraints. The wind farm invested in the development of a local broadband network and provides regular donations to local and regional social organisations, for children's festivals, the fire brigade etc.

SPOTLIGHT

Agra do Amial

This REC in Porto, Portugal, is being developed especially within a social housing neighbourhood with dedicated activities to promote the participation of the 181 families. Aiming at mitigating energy poverty by lowering energy costs, the REC will comprise of electricity generation from PV panels installed on the roofs, which will be then consumed within the community with the excess being sold to the grid. Next to storage units, the REC will also provide energy services associated with energy efficiency and demand response to its members to maximize the use of local generation and to promote the participation of community members in the provision of energy services.

RECs are an excellent means to make the energy system more resilient by increasing local security of supply and to hedge citizens against high-energy prices.

Moreover, RECs are suitable vehicles to protect citizens against the volatility of the electricity market. At the same time, the COME RES assessment of the potential for RECs in the target regions has shed further light on what is needed. Although there is, generally speaking,

a high potential for citizen ownership in the COME RES regions, the targets can mostly only be reached by complementing the direct investments with investments by local SMEs and local authorities and other means of funding.

Now more than ever: enable renewable energy communities

Community energy initiatives have a long track record in operating within regulatory contexts and markets which do not sufficiently mirror their specific operating conditions. In this respect, the story of community energy is, fundamentally, one of adaptation and experimentation within the limitations of a centralised energy model.

However, as demonstrated by numerous best practices and discussions within the COME RES country desks, fitting regulations and a dedicated enabling framework are instrumental for mainstreaming RECs.

All EU Member States are currently putting in place short-term measures to lower the burden of high energy costs for end-consumers, but a more proper long-term solution would be to properly incorporate the role of RECs, local collective self-consumption and energy sharing into the energy systems. These solutions have a proven track-record in lowering household energy prices. Enshrined in the Clean Energy Package, the revised Renewable Energy Directive (RED II) and the Internal Electricity Market Directive (IEMD) call on Member States to implement such an enabling framework. Advancements are being made, however this process is proving to be tough and progress varies from country to country. While several COME RES countries ignite fundamental changes in their energy market designs to accommodate a more citizen-led energy transition, only a handful of countries have achieved a degree of transposition which would satisfy the European requirements.

RECs have the potential to provide multiple answers to the various current energy and climate crises. As such, RECs may contribute to stabilise energy costs/prices and reduce the risk of energy poverty, strengthen system resilience and energy security, reduce the need for investments in electricity grid extensions/reinforcements, create local added value and employment, increase social cohesion and democracy, and enhance local acceptance of renewable energy projects.

COME RES provided a comprehensive overview of the current state of transposition as well as policy recommendations to EU and national policy makers in various reports (project deliverables). A compact account can be found in deliverables and policy briefs listed at the end of this publication.

In eight EU Member States and in Norway, COME RES has been contributing to the process of policy formulation process for RECs at national and regional level, especially through the project's stakeholder desks. **The countries are Germany, Netherlands, Poland, Portugal, Spain, Latvia, Belgium (Flanders), Norway and Italy.** All desks have successfully engaged policy makers and public authorities ensuring the involvement of politicians, ministries, local authorities, policy advisory organisations, etc.

A good level of participation of community energy initiatives and cooperatives, as well as associations and other groups of interest has also been accomplished. Even though not all stakeholder groups were represented in all the activities in all countries, the groups involved ensured a diversity of perspectives and interests on the implementation of renewable energy community initiatives.

All desks dedicated part of their activities' agendas to the discussion of the transposition of RED II in their respective countries, providing an assessment of the current legal and regulatory framework for RECs. These discussions allowed project partners to accompany recent national developments in the implementation of the provisions applicable to energy community initiatives and highlight the perspective of the different stakeholders on the ongoing transposition process. The activities within the desks were especially relevant to provide advice to policy makers responsible for the development of the RECs enabling framework. The COME RES "policy labs" acted as a neutral forum for discussing the development of a legal basis, creation of enabling frameworks and consideration of RECs in support schemes.





SPOTLIGHT

Latvian Stakeholder Desk

In Latvia the process of transposition of the RED II into national law was accompanied from the very beginning by the country desk. The Ministry of Economics was a regular participant in the country desks; with the responsible ministerial officials actively engaging in a mutual exchange of information and regularly informing the desk participants about the transposition of the EU's Clean Energy for all Europeans legislative package into Latvian law and inviting them to comment on draft legislation and provide opinions. The inspiring role of COME RES has been officially recognised in the annotation of the amended Latvian Energy Law and Electricity Market Law.

SPOTLIGHT

Belgian-Dutch Stakeholder Desk

The Belgian/Dutch country desk brought together stakeholders from Flanders (Belgium) and the Netherlands to cooperate in a cross-border desk. It facilitated networking between stakeholders that would otherwise not have connected and offered stakeholders from the involved countries a unique experience to get a better perception of how things might be radically different “across the border”, whilst also showing how different countries are reacting to the same European legislation.

SPOTLIGHT

Norwegian Stakeholder Desk

The discussions in Norway have brought out different stakeholder interests and at times conflicting views on RECs and local energy solutions in the Norwegian energy system. Local energy solutions (including RECs) are perceived both as a valuable and necessary element in the energy transition, but also a potential disruptive element as it challenges today’s centralised power distribution system and distribution of grid costs. To ensure adequate development there is a continued need for a dialogue between different actors and decision-makers in order to ensure supporting regulations and framework conditions that open up opportunities for grassroots actors (and thus community benefits) as well as ensure an optimal system for energy security and fair distribution of costs.

SPOTLIGHT

German Stakeholder Desk

The German desk involved a core group of approx. 50 stakeholders and a wider group of roughly 100 stakeholders. The stakeholders come mainly from the target region Thuringia and the model region Schleswig-Holstein, but also from other German federal states and organisations at the national level. A recurrent point of the stakeholder dialogue has been the transposition of RED II and its provisions for RECs in Germany. One of the key takeaways endorsed by the participating responsible ministries of the target and model region is that the still failing regulation on energy sharing represents the Achilles heel for mainstreaming RECs in Germany and that decisive action is deemed necessary.

COME RES has created four regional action plans for REC development which lay out concrete actions which should/will be undertaken in order to create an enabling framework in the COME RES target regions. Burdensome and lengthy registration, permitting and licensing processes, but also administrative hurdles associated with the design and operation of RECs, remain a main barrier, especially since many of them rely on volunteers.

Actions to address this barrier include administrative simplification (especially for the small-scale projects that RECs often engage in), information sessions with licensing authorities to clarify the eligibility and scope of action of RECs, or taking matters entirely out of the hands of the RECs by providing technical assistance for license application, business models, financial modalities, technical planning and implementation, etc.



SPOTLIGHT

Norte Region Action Plan

The Action Plan for the Norte Region in Portugal foresees the creation of (local) process managers, which would accompany potential RECs throughout the whole process – from the concept to the operational phase. Such persons could be local technical staff (from energy agencies, local authorities) who also have a direct link to the national regulatory authorities and licensing entities.

SPOTLIGHT

Lesser Poland Action Plan

The Action Plan for Lesser Poland includes the establishment of an energy community incubator to test feasibility of RECs before the implementation phase, tax exemptions for RECs as well as allowing local governments easier access to information on grid connectivity on their territory.

SPOTLIGHT

Canary Islands Action Plan

The Action Plan for the Canary Islands includes measures to promote the simplification of administrative procedures self-consumption projects as well as the hiring and training of human resources to speed up the uptake of RECs in city councils and local governments. It also foresees action to establish dialogue process between electricity distributors and public entities.

SPOTLIGHT

Apulia Region Action Plan

This action plan for the Apulia Region in Italy foresees further dissemination lessons learned during the COME RES transfer process, especially on business models. Additionally, it is envisaged to develop a tool which will support the development of RECs by providing cross-referencing with other RECs in the region and nationally.

Best practices all around Europe. What can be transferred?

There is an increasing amount of community-led energy initiatives out there, but what makes one a best practice, especially considering that every REC is situated within its own unique context?

COME RES managed to distill the essence of many initiatives in order to highlight 10 best practices, which have a higher degree of general applicability and are partially transferable to other regulatory, social and economic settings. Learning from other experiences can provide useful indications on how to face implementation barriers and enhance a market uptake of RES in target regions. A thorough cross-referencing of 10 best practices has resulted in an understanding that a successful REC project has to:

- i) Rely on some positive contextual factors (social/cultural, environmental and political)
- ii) Design financial and organizational models tailored to the specific local context
- iii) Receive support from public authorities
- iv) Ensure a degree of openness and inclusiveness
- v) Incorporate innovative aspects which create value

While the combination of factors influences the success of a project, it is clear that most practices have received some kind of financial and public authority support which was critical to their success.

There is no “one size fits all” solution for developing a successful REC. Each project is unique, facing unique challenges and opportunities, rooted in local context. Notwithstanding the uniqueness of each REC, learning from other is possible: The analysed best practices each had particular elements which have a certain universal applicability, and, within the project, this has materialized within the framework of so called “transfer roadmaps” which identified concrete actions on how to adapt elements of a particular best practice into another region. In total, four best practice transfers were initiated by COME RES.

→ A transfer team was formed involving representatives from the German federal state of Thuringia as well as representatives from the Dutch provinces of Gelderland

and Noord-Brabant to visit and learn from three Dutch best practices on energy communities. In the Netherlands, the group learned and gathered information about “the multi-functional Energy Gardens”, the citizen wind farm “de Spinder” and the community virtual power plant in Loenen from firsthand informants and on the spot. The German stakeholders considered the Energy Garden concept as the one to be replicable in the Thuringian context. This best practice consists of establishing multifunctional and biodiverse energy parks for and with the local community, which offer both recreational and educational services. The generation of energy goes hand in hand with nature and recreation and there is a high degree of local ownership by local citizens. Transferring this concept to Thuringia is promising and the team decided on several concrete actions to facilitate the transfer. This includes the preparation of a brochure with the core elements of the Energy Gardens and similar concepts in Thuringia followed by the preparation of criteria for identification and choice of a potential site for an Energy Garden.

→ A transfer has also been initiated to consider the replicability of the Ecopower experience to the City of Valfortore in Italy. The well-established energy cooperative Ecopower was founded in Flanders (Belgium) and shows how an experienced cooperative can develop and plan activities and what collaboration with other energy communities can look like. Acting as a licensed supplier, its producer/supplier model is interesting also for other regions. But this is also where the limitations imposed by national frameworks show their impact. Italian legislation does currently not allow RECs to act as energy providers. Nevertheless, the experience with citizen engagement and the strong role that the municipality of Eeklo played in setting up Ecopower’s success was inspiring to the Italian colleagues and several actions were devised on how to better engage citizens to participate and





→ The COME RES Dutch-German transfer team

how to make use of available national funding schemes to pay for the investment into new solar PV plants similarly to what was done during the start-up phase of Ecopower.

- A transfer has also been initiated to consider the applicability of the municipality-driven REC approach from the Italian town of Magliano Alpi to Latvia. This transfer is presented in the next section on financing.

Not only did COME RES initiate energy community transfer processes across borders, but it also carried out transfer activities within countries.

- In Spain a transfer team has been created to facilitate the transfer of the COMPTTEM energy community approach to other regions, specifically to the Canary Islands. COMPTTEM-Enercoop is a non-profit energy cooperative with the objective of generating rebates on members' energy bills and eventually supplying 100% renewable energy to the whole village of Crevillent. The visits have inspired action and it was decided to create a guidebook specifically for Spanish local authorities on how to promote similar RECs. COMPTTEM's "REC as a Service" model was deemed to be particularly replicable.

This approach allows new members of the energy community to avoid making an initial investment or up-front payment in the moment of joining the REC. Instead, the initial investment is covered by means of a loan with a (preferably ethical financial institution of choice), arranged by the cooperative. Once the installation is up and running, 50% the financial savings obtained from the energy savings of the installation are used to pay back the loan, while the other 50% of the financial savings is used to introduce a discount on the electricity bill.

The four cases showed that it is indeed possible to trigger transfers of best practices or elements of such practices across or within national borders and continue the successful cooperation initiated within COME RES also after the completion of the project. The project's final conference hosts a signing of memoranda of understandings (MoUs) between several stakeholders involved in the transfer process to further encourage the continuation in the future.

Opportunities and bottlenecks in the financing of renewable energy communities

Financing remains a key challenge (but also opportunity) for every REC. Allowing members to acquire shares (equity financing) is the most commonly known tactic for community energy initiatives. In fact, funding avenues are far more diverse and can include anything from the acquisition of debt capital, to dedicated seed-funding provided by national/regional or local authorities.

COME RES therefore analysed to what extent robust support and financing mechanisms exist and whether established renewable financing mechanisms sufficiently fulfill the needs of RECs.

The underlying approach was to assess the extent to which proven REC business and financial models could be transferred to another region in another country and to understand the factors that affect the success of a model in one context, but potentially not in the other. The overall political enabling framework also plays a role here since regulatory barriers (e.g. on energy sharing and grid use/feed-in restrictions) significantly hamper successful REC business models and financing schemes. This also extends to decision-making barriers regarding financial investments.

The conclusion is that there exists no “one fits all” approach to financing RECs because the preconditions in the Member States are simply too different. Although a financial model might seem straightforward, complying

with grid fees, concession fees, electricity taxes and various other charges as well as fiscal regulations are obstacles for a viable project in many regions. Similar considerations come into play when considering proximity limitations imposed by several Member States hindering RECs to effectively raise capital beyond the immediate surroundings and to limit REC activities to the low-voltage grid. Small size RECs often need to rely on voluntary work, which challenges the consistency of a project over a longer period. Costs for external expertise or institutional, legal costs for supervision fees can also present a barrier to the implementation of RECs as well. Low-income households often cannot participate in the high upfront costs and are mostly excluded or not interested to participate in RECs even though it could help them to decrease their energy bill. It would be important for local communities to assist and engage in RECs, but still many regions face a lack of sufficient strategies to support local energy communities whether through funding, promotional and information initiatives, training activities or dissemination of technical support tools. There are, however, exceptions:

SPOTLIGHT

REC Financing in Italy

In Italy, it is understood that, in order to overcome energy poverty and to support local economies, specific support for the development and implementation of RECs in marginal areas and urban suburbs needs to be developed still. Under the Italian Resilience and Recovery Plan, a sum of €2.2 billion is dedicated to support RECs in municipalities with less than 5,000 inhabitants. This should also help to counter depopulation of these areas. It is estimated that each municipality will get up to €1,000,000. Very importantly, Italy already provides an economic incentive for energy sharing. 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.



SPOTLIGHT

Community energy funds in the Netherlands and Germany providing start-up financing

The provinces of South Holland, Utrecht, Limburg and Drenthe have established a special 'development fund' providing start-up funding and risk capital to finance upfront costs which would later be repaid if projects prove successful. A similar fund has been established by the state government of Schleswig-Holstein in North Germany. Its 'Citizens' Energy Fund' helps projects in the planning and start-up phase and reduces financial risks. This revolving fund also helps to mitigate difficulties faced by local initiatives due to the uncertainties of the auction model. Inspired by the example of Schleswig-Holstein, the state governments in Thuringia and North Rhine-Westphalia decided to establish similar funds and the Federal government launched a support scheme providing start-up funding for citizen energy companies in the field of wind energy.

Generally, adaptation to national and market conditions is necessary to establish a well-functioning and sustainable business model for RECs. Although RECs should not act purely based on economic grounds, such motives still play a major role in any REC project as they need to be self-sufficient and be financially sustainable in the long-run.

- In the case of the Dutch Energy Gardens it was found that the fundamental business model, based on the raising of finance through equity capital and the subsequent selling of generated electricity to the grid can be replicated (relatively) easily in Thuringia. The German legislation provides access to market premiums for energy plants including open-space solar farms. However, just as in the Dutch Energy Gardens, there is a need to supplement financing of such a project through additional means e.g. the establishment of a foundation, grants, or debt capital in order to cover the expenses of the ecological/recreational and educational elements. The analysis of this particular case provides evidence that improvements in the overall enabling framework ease the viability of REC business models. Recent policy changes in Germany exempt citizen energy companies (including energy cooperatives) from participation in auctions, which significantly ease the burden on such projects and decrease risks.
- In considering the application of the Ecopower business model to the context of the Italian Region Apulia, it became apparent that Italian legislation limits the development of a similar business models

simply because the Italian legislator does not foresee the option for RECs to become energy suppliers and therefore sell energy on the market. Instead, the Roseto energy cooperative (which is in the Apulia target region) has developed an approach in which the municipality makes some of its buildings and public spaces available for the installation of PV panels. The utility company then installs panels at its own cost, so that the REC does not have to incur direct costs. The benefits generated from savings generated are, partially, paid back by the REC to the utility company and partly reinvested into the REC. Following this approach has significant benefits for including citizens since they do not have to directly invest and benefit from savings on their energy bills.

- The transfer of the Italian case "Energy City Hall REC-1" to Latvia has shown that the fundamental business model, which is based on electricity self-consumption, sharing and surplus selling, could be applicable in the Latvian context especially considering the high importance of the municipality acting as a facilitator. In applying elements of the model employed in Magliano Alpi, value can be created by promoting energy community business models based around energy self-sufficiency as well as the opportunity to sell surplus electricity on the energy market as specifically allowed by Latvia's legislation. In order to mitigate energy poverty, the supply of electricity to social housing buildings as well as the inclusion of energy-poor citizens directly in the REC is going to be explored following the model from Magliano Alpi.

Local/regional governments and renewable energy communities – A dream team

There is one recurring theme which can be highlighted throughout the analyses during the COME RES project. RECs, which receive some kind of support from local and / or regional public authorities, have a good chance of being successful, especially during their startup phase.

This fact is actively supported by the European institutions and several Member States are developing dedicated support for public authorities to enable them to act as facilitators, enablers and participants of RECs. In particular, municipalities are key actors of RECs given their intrinsic interest in creating socio-economic benefits as part of their local climate and energy planning.

As demonstrated in the COME RES good and best practices, public authorities can take a lot of actions to support REC development.

- They can offer energy communities the opportunity to participate in public tenders. This can take various forms e.g. by including a mandatory share of citizen participation in public procurement procedures for renewable energies and including specific provisions related to the procurement of electricity/heat for public buildings.
- They can make public space/rooftops available for the installation of assets owned by a REC. This can also take the form of leasing contracts to significantly reduce investment costs. The concession of underused public space would be an effective way of providing the required land to a REC.
- They can raise awareness and visibly endorse RECs activities in order to make REC participation more appealing to additional citizens.
- They can share municipal staff and resources e.g. join the board of the energy community.
- They can become part of the energy community themselves, taking a leadership role and instilling confidence which comes with having the local government being a direct part of the REC.
- They can set concrete targets for the promotion of energy communities and make them a firm part of the climate & energy plans.
- They can save costs and can protect vulnerable households
- They can bring together different stakeholders and promote innovation through co-creation and citizen engagement.
- They can benefit from increased security of supply, flexibility and resilience of local grids.
- They can profit financially from engaging with RECs e.g. as a result of stable business tax revenues and access to local renewable energy sources.
- They can collaborate with financial institutions to create public or private-public contingency funds as collaterals for RECs when applying for loan.



SPOTLIGHT

Ecopower

The first milestone of Ecopower's successful journey was winning a tender issued by the City of Eeklo that allowed the renewable energy cooperative to build three wind turbines in 2001-2002. The city was looking for a partner for a wind farm on its land to initiate citizen participation. Since then, several cities and municipalities have followed this example. Ecopower is now active at national level and supplies green electricity to the Flemish region with renewable energy production installations across the whole of Belgium.

SPOTLIGHT

Energy City Hall REC 1

This REC, established in 2020, is a key example of how municipalities can establish energy communities themselves. The Municipality of Magliano Alpi, Italy, initiated the energy community together with five private citizens, with a 20 kW PV installation on the roof of the city hall. More capacity is currently underway. The REC, of which the Mayor is the president, is equipped with an Internet of Things (IoT) platform to manage energy flows and to allocate benefits coming from shared energy to its members. The REC aims to make the city hall, the library, the gymnasium and the municipal schools self-sufficient. Another objective is to exchange surplus energy between the participating families and small businesses. A general reduction of energy costs for those participating is another benefit, contributing to the alleviation of energy poverty in the area.

SPOTLIGHT

Energy communities in Latvian apartment buildings

The Municipality of Mārupe has positioned itself as a green municipality focused on smart solutions and actively organises public campaigns on the topic of green energy. In particular, the municipality promotes energy communities as part of its Sustainable Energy & Climate Action Plan (SECAP). In collaboration with the Riga Region Planning Authority, the municipality facilitated the installation of PV panels on apartment buildings in collaboration with the buildings' homeowner associations. 85% of the investment in each of the pilot projects was funded by the EU project "Energize Co2mmunity" and the remaining 15% was paid through national financing. The owner of the installed solar equipment, Riga Planning Region, lends the equipment to the Municipality of Mārupe, which in turn makes it available to be used by the homeowners' associations. After this tripartite agreement ends, the PV installations will become the property of the homeowners' associations. Residents of the buildings benefit through rebates on their energy bills.

SPOTLIGHT

COMPTÉM – Enercoop

This REC was founded as a collaboration between the energy cooperative Enercoop and the local government of Crevillent as a village-wide energy community. Currently, 65 households are participating, but it is envisaged to include up to 30,000 locals in the energy community in the long-run. Activities include collective self-consumption, storage, the optimisation of the energy and economic flows of the installation, electricity-sharing using blockchain, and a mobile app for citizens with information about their energy use. Additionally, to lower the participation barrier for citizens, no initial individual investments are needed. The expansion of the REC to the whole village will mean using currently empty roof space and public lands. The municipality provides administrative support to Enercoop. The municipality will also allow for the installation of PV solar panels on local government roofs and has already permitted public unused land to be used for the construction of larger solar energy generation facilities. Additionally, the regional government provided two e-mobility charging stations.

It should be mentioned that the framework conditions for energy sharing are relatively favourable in Spain and, at the regional level, Autonomous Communities and municipalities provide incentives for the establishment of self-consumption installations in the form of grants, subsidies and tax exemptions.

SPOTLIGHT

Røverkollen housing cooperative

This housing cooperative provides renewable electricity to residents, so that they can charge their electric vehicles (EV) at a reduced cost and provide predictability and security concerning charging needs. On August 2021, 8 out of 10 new cars sold in Norway were EVs and the City of Oslo is very interested in fostering further uptake of electric transport and therefore increasing the flexibility in the power system to reduce peak loads. The project entails renewable electricity production through rooftop solar PV and a smart EV planning system for charging, which balances demand with available supplies to ensure optimal energy efficiency and avoids peak demand in the Oslo electricity system. The energy community brings together all residents of the Røverkollen housing cooperative.



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Through local ownership, collective self-consumption and energy sharing, renewable energy communities are proving to be effective in reducing people's energy costs while also increasing acceptance of renewable energy infrastructure.“

Dr. Maria Rosaria Di Nucci, COME RES Coordinator
Research Center for Sustainability, Freie Universität Berlin

The One-Stop-Solution for everything about community energy: The Community Energy Platform

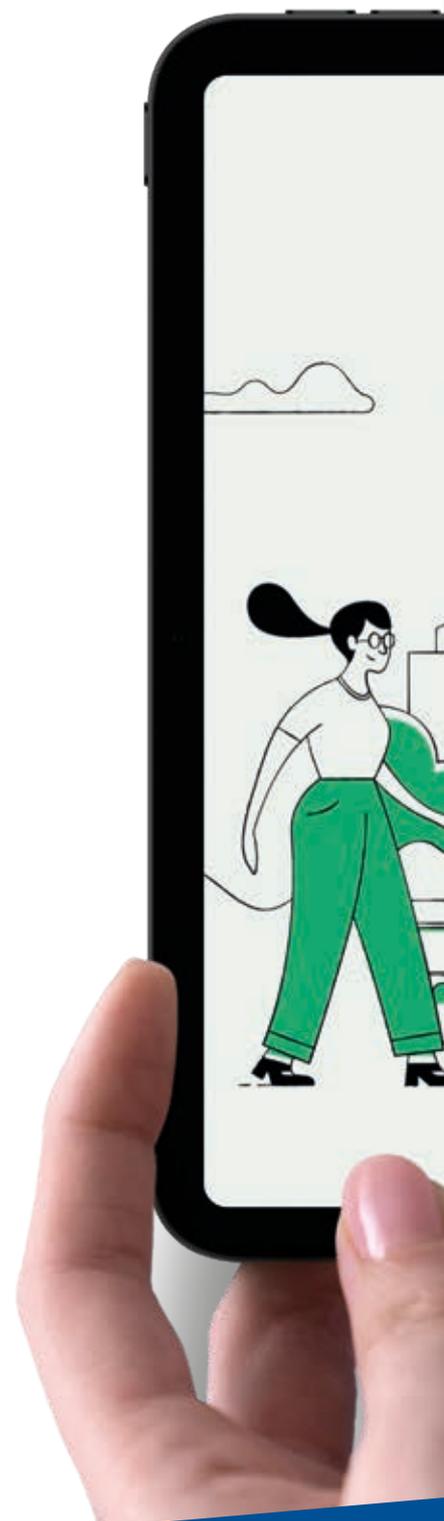
It order to continue the promotion of good practices around RECs, COME RES has co-created the Energy Community Platform, an online and open-access platform, resulting from a collaborative effort of REScoop.eu and several European projects. The aim is to assemble in a single place all the resources that can support citizens and other promoters in moving forward with their energy community initiatives.

The Community Energy Platform was developed with the aim of becoming a “one-stop solution for everything about community energy”. Considering the numerous resources and tools available to aid local actors to set up energy community projects, which are scattered across many different websites, the platform facilitates access to these resources through their concentration into a single and visible website. The platform also gathers a wide collection of resources and tools organised by area/theme or activity and enables the registered energy community initiatives to receive tailored recommendations for action according to their profile.

An additional highlight is that the platform provides a maturity test and sustainability scorecard, which can be used by energy community initiatives to assess their development stage and impact.

The community energy map features examples of energy communities across Europe. The map has a continuously growing database of energy community initiatives, where communities can showcase their initiatives and can get in contact with other initiatives.

As a whole, the platform fosters the creation (and continuous growth) of a network of experts who supports community initiatives to move forward with their projects' implementation, and provides also a list of experts across Europe.





One-stop solution for everything about community energy

Join the Energy Community Platform to get all the support you need to move forward with your community energy project.

[Join Us](#)

[Log in](#)



[Discover our platform](#)

Outlook

At the end of the project, there are positive signals that the infrastructure set up with the establishment of the country stakeholder desks will find ways to enable further cooperation and that the core stakeholders will seize all the opportunities to ensure the continuation of these networks.

In several cases spin-offs from the activities of the desks are in the making. The transfer process facilitated by COME RES in Spain, for example, initiated a collaboration framework which is going to continue between the selected mentoring organisation (best practice promoters COMPTM) and the Gran Canaria's Energy Council leading to policy development and REC creation in the target

region of the Canary Islands. A further step is now the signing of several memoranda of understanding (MoU) which will informally manifest the commitment of the actors involved in three cases of transnational and national transfer activities to continue the dialogue and cooperation initiated within the country desks also after the lifetime of COME RES.

Useful resources

D2.1 Assessment report on technical, legal, institutional and policy conditions

D2.2 Assessment Report on Technical, Legal, Institutional and Policy Conditions in the COME RES countries

D2.3 Synthesis case studies drivers and barriers

D3.3 Final Consolidated Summary Report of Desk Activities in the Target Regions

D3.5 Four proposals for action plans to enhance the development of RECs in target regions

D4.2 Report on novel financing instruments for RECs

D4.3 Report on tailor-made business models for RECs in four selected target regions

D5.2 Good practice portfolio

D5.3 Synthesis report based on in-depth assessment of 10 transferable best practices

D6.2 Four capacity development and transfer workshop reports

D6.3 Four best practice transfer roadmaps for learning regions

D7.1 Comparative Assessment of enabling frameworks for RECs and Support Scheme Designs

D7.3 Final Policy Report and Recommendations



Advancing Renewable Energy Communities





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