



Co2mmunity



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# Recommendations for development of renewable energy communities in Latvia

National context and suggestions for action



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## Introduction

This paper offers a set of policy recommendations for renewable energy communities in Latvia.

Although numerous community energy projects in Europe date back to the 20<sup>th</sup> century, the interest in their legal, regulatory and economic aspects has grown substantially following adoption of The Energy Union Strategy and, most recently, the revised Renewable Energy Directive 2018/2001 and Electricity Market Directive 2019/944.

In Latvia, there are few community energy incentives in either renewable electricity generation or local heating systems. However, there are notable exceptions: several multiapartment buildings have installed solar collectors for water heating; public buildings with solar panels, collectors or heat pumps; as well as emerging DIY communities of interest.

Riga Planning Region has recently launched several “Co2mmunity” project pilots at Mārupe municipality. These sites are significant “sandboxes” for understanding practical, technical and institutional steps towards community formation.

As energy communities are primarily social and organizational formations, their technological choices and legal forms vary. For launching more independent and viable projects we need new organizational forms recognized in the legal frameworks that govern the energy systems.



Citizens and energy communities will have a key role in energy transformation. Participation is essential for effective climate action and community projects hold a demonstrational value that may increase public acceptance of renewable energy.

We suggest that energy communities could contribute to reaching the national decarbonization targets in this decade. Moreover, evolvement of distributed generation, efficiency measures, and sustainable heating systems require a changing landscape of governance and cooperation. Nevertheless, it is a long way to go.

Hence, these recommendations respond to the barriers encountered in policy and practice. The goal is to establish administrative procedures and funds that support renewable energy projects. Our suggestions are grouped along four axes:

- Regulations
- Funding
- Engagement
- Planning

Many of these recommendations depend on a timely and progressive implementation of the National Energy and Climate Plan 2021-2030 (NECP2030) .

We used desk study and focus group methods for collecting insights and suggestions for this paper. An expert discussion on barriers and benefits took place in March 2020.

## Energy communities in the national policy context

The articles of Renewable Energy Directive and Electricity Market Directive send a clear message to support the development of energy communities in the EU. It is up to the member states to transpose their provisions in the national legal contexts and come up with proper mechanisms for empowering citizens to partake in sustainable energy transformation.

Each EU member state has adopted an integrated energy and climate plan for the next decade (NECP2030). Latvia's NECP2030 contains several policies and measures referring to energy communities:

- Direction of action “Economically feasible promotion of energy self-generation and self-consumption”;
- Policy area “Involving society in energy generation” with a focus on energy efficiency and renewable energy targets;
- Support measures including new legislation, feasibility studies and project funding.

While the preconditions for community-friendly energy system have been identified in the NECP2030, its implementation begins from a ‘blank page’. Therefore it may take longer than expected to complete the measures suggested in the documents.



## Riga Planning Region and community energy in Latvia

The Riga Planning Region (RPR) covers an area with more than 1 million inhabitants (CSB data, 2019). RPR includes Rīga, Jūrmala and 28 other districts. The spatial structures of the region are diverse: growing and shrinking settlements developed over different periods of time, the capital city itself with adjacent suburbs, as well as other urban centres and countryside. According to the NECP2030, metropolitan areas host the largest number of households installing solar panels (according to '[Latvenergo](#)', there were more than 700 permits issued for solar prosumers in Latvia in early 2020).

'[Riga Planning Region Sustainable Development Strategy 2030](#)' expresses support for community initiatives and RES projects. In addition, '[The Action Plan for the Development of the Riga's Metropolitan Area](#)', which was published in 2020, anticipates energy planning and climate adaptation measures.

The RPR's '[Development Programme for Heating Systems](#)' contains recommendations for sustainable local heat supply systems and explains that future demand will be mainly affected by "changes in end-user energy efficiency, development of RES technologies, development of heat metering and control opportunities, economic activity in the defined area, population and energy end-user habits".

RES community movement in Latvia is in the early development stage. However, there are various initiatives – both by municipalities and by individual citizens – that include features of energy communities or RES projects.

In the multi-family residential sector, the best-known example is in Sigulda, where solar collectors and a pellet boiler provide autonomous heat supply for 36 apartments. The second more recent project (from 2018) can be found in Valmiera (supported by ALTUM energy efficiency grant) with roof-mounted solar collectors on an apartment building. There have been several municipal projects as well (Blome, Ķekava, Gulbene).

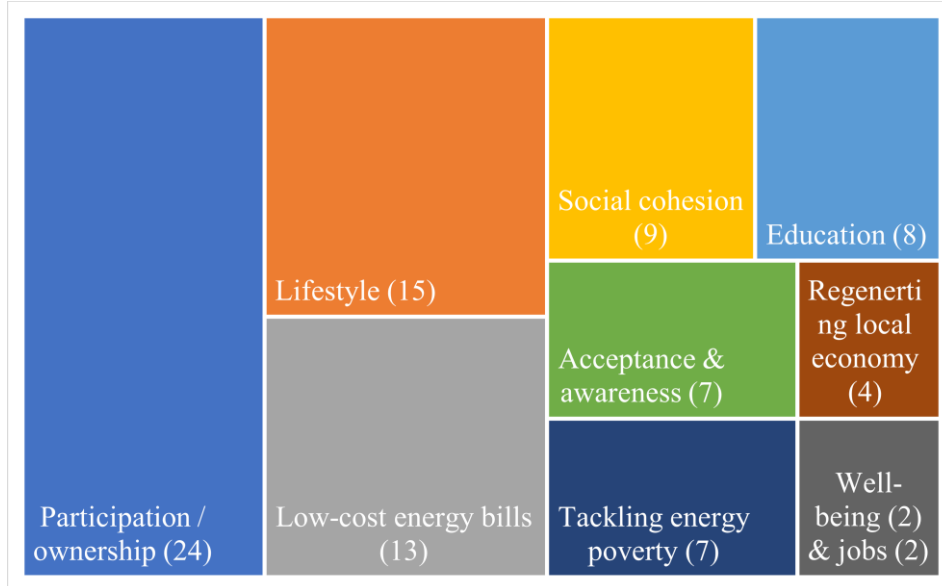
Further examples include the project "OFF GRID: Renewable energy DIY" funded by LEADER. The aim was to encourage rural residents to build microgeneration devices for their own personal energy consumption in that way reducing, among other things, their energy costs and increase the use of zero-emission technologies.

Finally, Co2mmunity pilot projects in Mārupe municipality mark the next level of finding the right technical solutions for shared ownership of projects. Read the full description [here](#).

## Benefits and advantages

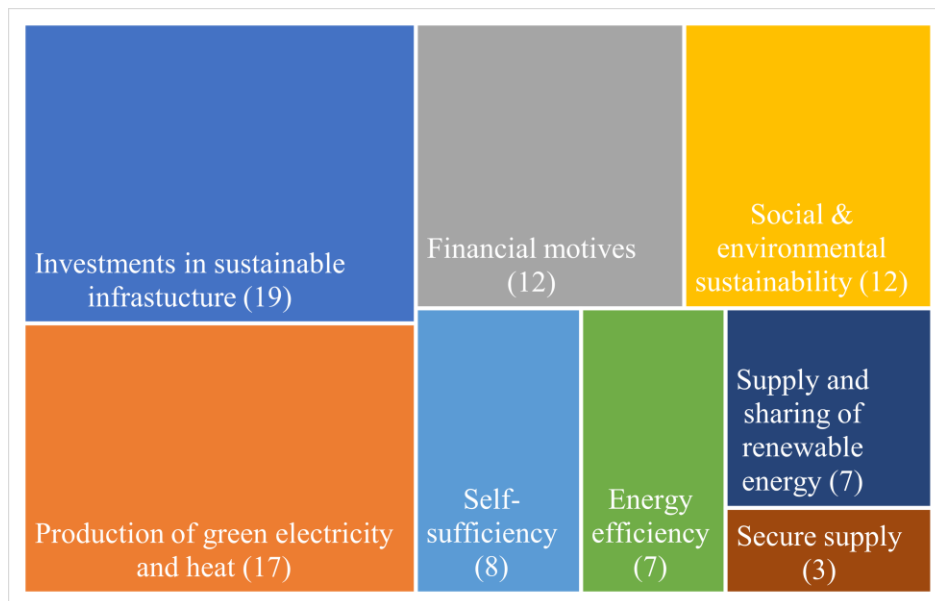
The main energy community benefits, as seen by the experience of other European countries (JRC, 2020), include sustainable living, lower energy costs, and shared property for the community's participants. Energy "citizenship" and democracy arise from control over energy resources and an equal role in decision-making. Equally important aspect is the financial return

on projects as well as the interactions between the energy community’s participants with other users, producers and operators outside the community. (See Figures 1 & 2 ).



**Figure 1. Socio-economic benefits of energy communities. Based on a study of 24 community cases.**

Source: JRC, 2020.



**Figure x. Drivers motivating participation. Based on a study of 24 community cases.**

Source: JRC, 2020

According to Brummer (2018), there are seven benefits to energy communities: economic benefits, education and acceptance, participation, climate protection and sustainability, community building and self-realization, RE generation targets, and innovation.

When Brummer talks about the ‘innovation’, he emphasizes how participants of energy communities are not only advancing the technological innovations within the energy sector,

but also “changing societal structures” (Brummer 2018, 191). Moreover, according to his research, people who participate in energy communities have a greater understanding of how energy is consumed and produced and its relation to the climate change, as well as they have a higher degree of civic participation in decision-making within the energy sector.

## Barriers and constraints

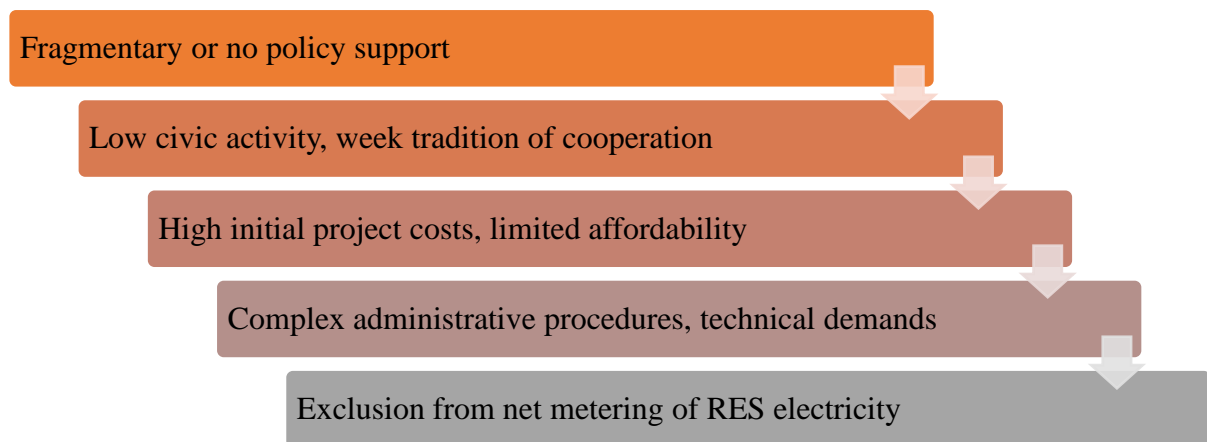


Figure 3. An overview of the main barriers

Even though energy communities have a lot of benefits and advantages as discussed above, an assessment by the Co2mmunity team (Ruggiero et al., 2019) reveals that the energy policies in Latvia are the least supportive of the community energy projects. Energy system has been centrally governed in Latvia and is not sufficiently open to hybrid forms of cooperation and public initiatives.

At the national level, according to the NECP2030 assessment, civic participation in energy production in Latvia is low, therefore the development of community energy must face several challenges. One of the obstacles to the increase of energy self-consumption in Latvia, is the lack of incentive instruments, and the other - regulations that does not encourage initiatives. It is worth mentioning the fact that initial costs to develop community energy projects are high, as well as the payback period of projects is relatively long, therefore development of such projects seems to be available to a small number of owners.

Furthermore, lack of transparent rules and inefficient coordination between licensing authorities were pointed out as obstacles to the development of energy communities by the Renewable Energy Directive.

In the Latvian self-assessment report on the availability of financial instruments for the development of RES projects (FIRESPOL 2019) it is indicated that this area is fragmented.



Experience from the Co2mmunity pilot projects in Mārupe highlighted that technical knowledge on legal and accounting issues is required for decision-making and project management. As the experience of such projects in Latvia is limited, each community energy project initiative must find an individual approach in order to find the best solutions for administrative and technical approaches.

Finally, the current net metering system is not compatible with the energy community idea since energy communities could include broader organizational forms, for example, corporate bodies. Current net metering system offers favourable terms only to individual households.

## Regulative frameworks

The Electricity Market Directive stipulates that energy communities, among other initiatives should be considered as forms of cooperation, so there should be no restrictions on their type of legal entity.

The main feature of energy communities is that the property is managed, and decisions are made by all members or shareholders of the entity. This community is an organizational unit between different persons (legal bodies, companies etc), where each member retains their rights to leave the community and choose another energy supplier if they wish so.

According to ASSET (2019), the diversity of legal forms of energy communities provide the flexibility needed for new business models, therefore regulations that formalise inapposite restrictions should be avoided.

A study by NECP2030, that will assess the appropriate business strategies for energy communities, is planned to be delivered by the year 2026. For example, energy communities could possibly take shape as social enterprises. The law on Social Enterprise was adopted in Latvia in 2018.

As reported by ASSET (2019), previously energy communities in other European countries have emerged without any set organisational structure, the organisational structure develops over the time as the energy community builds. Previous examples reveal that energy communities with small number of participants are the most successful.

According to JRC (2020), there are manifold legal forms an energy community could take: (1) Cooperatives, (2) Limited liability companies, (3) Foundations, (4) Housing associations (owners/tenants associations), (5) Non-profit companies, (6) Public / private partnerships, (7) Municipality owned utility companies.

There are four main areas of regulations particularly relevant to electricity generation and distribution identified in the CEER report (2019) by the Council of European Energy Regulators: consumer rights, balancing and flexibility, the business model and market design, and grid ownership, operation and development.





These points indicate a close relationship between the members of energy communities and the system operators – energy communities are dependent on the distribution and transmission networks operating conditions, costs, and geographical location. For example, one of the factors that affects the costs depends on the system's capacity.

## Recommendations

This section presents our recommendations for the policy makers. While there is a broad scope of actions to be taken or supported by diverse stakeholders, creating stable and progressive policy framework comes first (cf. Ruggiero et al. 2019). Putting regulations and the normative environment at the forefront may not be enough for actual projects to come true. However, avoiding regulative barriers and integrating community ideas in planning and public funding are necessary steps for picking up the pace towards socially inclusive and economy-wide energy transition.

### Facilitate energy communities through regulations

- ✓ **Incorporate community definitions and general provisions in Energy Law & Electricity Market Law**

“Energy community” definitions and their general provisions must enter the legislative acts in Latvia. The main questions are rights, obligations, and licensing for entities other than commercial service providers or users.

- ✓ **Strengthen flat owner associations and synergies with renovation projects**

Multiapartment buildings could be the key sites for collective self-consumption of renewable energy. Their management and shared ownership still pose many challenges because of weak cooperation and regulative constraints. The past decades have not brought about massive renovation, and energy efficiency measures are pending for a large number of buildings.

- ✓ **Ensure participation of public / local authorities in community RES projects**

According to Clean Energy package, communities are hybrid organizations. They are citizen led, yet are formed by different entities, including local authorities and public utilities.

Municipal government could take a more proactive role in taking decisions required for sustainable development of district heating networks or individual systems. Besides planning procedures, municipalities have a consulting role. However, joint management and co-





ownership could be the most promising developments for citizen involvement in energy transition.

- ✓ Adjust the net metering system to include community organizations, or come up with alternative models

Gradual expansion of net metering system is preferred by many stakeholders and could provide extra economic incentives for RES deployment.

The distribution system operator, however, suggests that the financial benefit for the energy community participants should primarily be the local use of self-generated electricity and collective exchange. For that reason the reduction of distribution tariffs would also not be automatically justified. Instead, new models of metering and trade could be more feasible.

- ✓ Balance costs and benefits with other players, as well as adopt rules among the community members

According to the Renewable Energy Directive:

“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.”

The cooperation between the grid operators and the energy communities as stated in the Renewable Energy Directive (Article 22) could take the form of the exchange of accurate information that ensures smooth operation of each energy system participant. Reduction of the costs for energy communities can be achieved by balancing demand, generation and supply within the community (i.e. consumption time, capacity, planning).

However, decentralized governance will be successful only if the rules work well to meet the different needs and modes of cooperation among the community members.

### Diversify funding for community RES

- ✓ Fit community RES under Cohesion policy objectives «A smarter Europe» & «A greener, low-carbon Europe» in the programming period 2021-2027

Most of community-related RES projects in Latvia have come true because of dedicated funding programmes. In 2020, the work on programming the EU funds for the next multiannual financial framework, has begun. Providing that energy communities will be entitled to grants and loans is a way to make the implementation of Cohesion policy more participatory and efficient. Thus the “smarter” and “greener, low-carbon” Europe objectives are well suited to support the measures grounded in the NECP2030 and National Development Plan. Community



RES projects must make the first appearance in Latvia's EU funds operational programme without delay.

Public funding is expected to become more available for the installation of zero-emission technologies, in particular to meet urban air quality targets. Currently, the air quality is affected by the individual heating systems within households.

✓ **Include communities in the Rural Development Programme, LEADER**

Community RES projects open new opportunities for reaching climate goals of the Common Agricultural Policy, thus energy communities should find place in the Rural Development Programme as well. Furthermore, renewable energy is a suitable topic for LEADER projects and local partnerships. "Smart villages" as promoted by the European Network of Rural Development is another prospective topic for RES deployment that needs recognition among the policymakers.

✓ **Establish new state foundation for RES and EE projects & ETS funding**

In order to move towards a greener tax policy, it is intended in NEKP2030 to divert part of the revenues of natural resource tax and excise tax to the State RES and Energy Efficiency Promotion Fund. This fund would be used for loans to carry out the development of community energy projects. Also, emission trading system could provide a reasonable source of funding for citizen initiatives.

✓ **Address community projects in European Investment Bank's and commercial lending criteria, and sustainable finance planning**

European Investment Bank has adopted new energy lending criteria and has an increased focus on climate action funding. Thus there is an expanding room for receiving technical assistance, however, project size may pose constraints to acquire loans. The role of national intermediaries is important. Energy communities should be eligible to commercial bank loans as well. On the EU level, community interests can be represented as specific green project categories qualifying for sustainable investments.

✓ **Adjust support schemes (equal conditions with commercial actors) & specific tax exemptions**

The complex problems with the mandatory procurement scheme have cast doubt on the legitimacy of the state support for green electricity generation. The main critique is the unfair distribution of costs and disproportional revenues for selected companies. When considering future market-based support mechanisms for renewable energy, the government must grant equal rights to energy communities without discrimination. Although community projects do not have financial profits as their primary goal of activity, they too must participate in the markets on equal terms with commercial actors.



While grants and loans are pivotal for launching more projects, also tax regimes could be adjusted to motivate cooperation with local authorities and landowners.

### Ensure engagement, coordination and access to information

- ✓ **Establish single contact point for administrative procedures (including know-how assistance & info hub about existing initiatives)**

NECP2030 envisages opening a contact point to simplify permit-granting procedures and improve access to information in accordance with the Renewable Energy Directive (Article 16). While the core initiative awaits a rapid implementation, there are other complementary information services to promote.

First, project preparation is a technically challenging task that requires human resources. Access to know-how and standard project manuals would ease the process for many actors. Second, there is a gap of information on the current prosumer and community activities. Better understanding of individual cases would help institutions and enterprises design more responsive systems and services.

- ✓ **Launch information campaigns authored by the government that demonstrate public support for energy citizens and community projects**

There is a growing number of clean energy campaigns run by environmental organizations. Likewise, there is civic activism with specific rights-claims and proposals. Although support in terms of policies and funding is crucial, governments should become more active to use informational tools. For example, environmental advertisements, public posters, and social media posts with clear messaging would serve to convince the public that energy communities are integral to overall energy and climate policy goals.

- ✓ **Publish energy monitoring and carbon footprint data**

Energy services and infrastructures are omnipresent, but our understanding of energy systems in everyday life is limited. Citizens would benefit from learning more about the operation and costs of RES technologies such as solar panels, collectors, heat pumps, or storage devices. Likewise, authorities require technical references for calculations guiding policies and funding schemes. Open data initiatives enable comparison and sharing or serve as illustration and “fact-finding” in the digital media.

A notable example is Salaspils’ solar district heating system. The award-winning project has an advanced monitoring and control system, and shares its basic data with the public:



## #Solarnews from @SpilsSiltums



### ✓ Enhance participation through neighbourhood associations and green NGOs

Although Latvia's civic sector is less developed compared to Western Europe and Nordic countries, there is an emerging culture of urban activism, associations, and environmental movements. Thus, despite the lack of economic cooperation, there is an opportunity to “attach” renewable energy projects to existing communities of interest or seek to widen public engagement through the communication platforms hosted by the NGOs. Necessarily, the transformational effects of prosumerism and collective energy investments take place in response to shared concerns of climate protection, ecology, and local development.

### ✓ Support research & cooperation with universities for innovation

Energy communities are in realm of social and energy innovation (JRC 2020). Furthermore, their successful operation would entail new rules, business models as well as communication systems adjusted to different geographical environments and technologies. There are cases when community projects emerge as a result of research activities, and there are many cases where collaboration with scientific institutions would be mutually beneficial. The fifth dimension of the energy union is “research & development”.

### Plan for energy communities and climate-neutrality

### ✓ Focus on energy communities in implementing the NECP2030 – new decarbonization targets upon its revision in 2023

Latvia's NECP2030 is the main policy document preparing the foundation of renewable energy communities. Among its numerous measures, community aspects must be prioritized in updated normative frameworks and funding programmes. Furthermore, specific targets for community projects should be included in the next revision of the plan in 2023.



### ✓ Advance spatial planning & Sustainable Energy and Climate Action Plans

Many collective RES projects address spatial planning questions and the Renewable Energy Directive (Art 15, 3) stresses the need for coherent administrative procedures:

“Member States shall ensure that their competent authorities at national, regional and local level include provisions for the integration and deployment of renewable energy, including for renewables self-consumption and renewable energy communities, and the use of unavoidable waste heat and cold when planning, including early spatial planning, designing, building and renovating urban infrastructure, industrial, commercial or residential areas and energy infrastructure, including electricity, district heating and cooling, natural gas and alternative fuel networks. Member States shall, in particular, encourage local and regional administrative bodies to include heating and cooling from renewable sources in the planning of city infrastructure where appropriate, and to consult the network operators to reflect the impact of energy efficiency and demand response programs as well as specific provisions on renewables self-consumption and renewable energy communities, on the infrastructure development plans of the operators.”

The more references there are in the documents linked with the EU’s climate and energy policy, the more likely is the implementation of community projects. In addition, Sustainable Energy and Climate Plans, which are familiar to many municipalities, may serve for mainstreaming community-led RES projects.

### ✓ Increase capacity of Riga Energy Agency

Energy agencies play a key role in transition to more sustainable energy systems because of their technical expertise and defined geographical scope of policy work. Riga is the capital of Latvia and has the largest ‘population’ of people as well as buildings, enterprises and infrastructures. Despite its central position, low-carbon mobility, housing renovation and urban greening lag behind in comparison to other towns and cities.



Riga Energy Agency is a municipal institution that works on a limited number of “niche” projects and oversees Riga’s energy policy according to the Covenant of Mayors.

It has a small team of employees and modest public outreach. Thus there is a gap of activity, but also a large opportunity to expand the agency to guide and promote the formation of energy communities for uptake of renewable technologies and efficiency projects.

### ✓ Activate the role of distribution system operators based on shared benefits

System operators should be entitled to participate in joint projects with communities and research institutions. Operators hold specific knowledge about technical requirements and system properties, whereas individual community projects can offer the ‘sandboxes’ to test new solutions for control and communication systems, efficiency or tariff policies.





- ✓ Wind energy projects – aim for social acceptance, explore community ownership and draft guidelines for commercial projects

Latvia's NECP2030 is determined to increase the share of wind in renewable energy mix. Wind parks are uncommon in the present-day landscape and no major projects have been completed recently (Āboltniš 2019). Moreover, citizen protests have stopped the permitting process for a new large-scale project, and the question of social acceptance and solving territorial conflicts remains open.

Latvia's Wind Energy Association suggests a size-based distinction between community and commercial wind projects. Smaller projects with up to 10 MW installed capacity would be suitable for cooperative ownership. Whereas large-scale commercial projects could benefit from state-made guidelines for best practice addressing local investments, shared benefits, and participation in planning, especially for wind turbine siting. In-depth recommendations for community wind energy have been published by the [WinWind project](#).

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