Interreg Danube Region

Co-funded by the European Union

NRGCOM

From Barriers to Successful Sharing: Renewable Energy Communities Across the Danube Region

Joint Dissemination Report

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May 2026

This document was prepared as part of the NRGCOM project, an Interreg Danube Region Programme project co-funded by the European Union.

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About this report

This Joint Dissemination Report is the closing communication output of the **NRGCOM** project (*Creating appropriate operational conditions for renewable energy communities in the Danube Region*), co-funded by the European Union under the Interreg Danube Region Programme. It compiles success stories, hard operational data and policy recommendations from ten partner countries — Austria, Bulgaria, Czechia, Germany, Hungary, Montenegro, Romania, Serbia, Slovakia and Slovenia — and translates them into a single, evidence-based picture of how the market for Renewable Energy Communities (RECs) is being transformed across the region.

The report is intended for three audiences:

- **national policymakers and regulators**, as a direct input alongside the project's final White Paper on Renewable Energy Communities (Output O.3.3);
- **municipalities, energy cooperatives, agencies and civil-society organisations** considering, founding or scaling a Renewable Energy Community;
- **partner organisations and the wider Danube Region energy community**, as a shared reference document that each partner can use to communicate the project's achievements at national level.

About the NRGCOM project

NRGCOM (Renewable Energy Communities in the Danube Region) is a transnational project running from January 2024 to June 2026. Its overall objective is to improve and expand energy communities by creating an enabling environment for their adequate functioning across the Danube Region. The project is implemented in twelve countries by thirteen project partners and fourteen associated strategic partners — state administrations, local self-governments, energy, development and sectoral agencies, and civil-society organisations. The lead partner is the **Regional Agency for Innovation in the South Transdanubian Region (STRIA)** from Hungary; the lead partner for Activity

A.3.4 — under which the pilot communities described in this report were evaluated — is the **South Bohemian Agency for Support to Innovation (JAIP)** from the Czech Republic.

The project's work programme covers three interrelated streams: (i) joint analysis of regulatory, technical, economic and social barriers to RECs across partner countries; (ii) harmonised technological pilot actions in selected energy communities, including the joint testing of the ETMEC (Expert Tool for the Management of Energy Communities) software developed by partner NEK (Slovakia); and (iii) capacity building, knowledge transfer and policy advocacy through national ambassadors, workshops, study visits and the upcoming White Paper.

How national contributions were collected

In spring 2026 each partner was asked to draft a national press release / article based on its local pilot experience, following a unified six-paragraph structure:

1. **Introduction & current national context** — current status of RECs, recent legislative changes, growing interest of the public and municipalities, and the role of NRGCOM in addressing barriers;
2. **National milestones & broad examples** — one or two positive examples or recent milestones (successful communities, new platforms, digital tools, supportive networks);
3. **Identified barriers & challenges** — based on NRGCOM evaluations (Activity A.3.4), the main barriers hindering the full potential of RECs in the country;
4. **Local success story / pilot project highlight** — the specific pilot evaluated within NRGCOM, with concrete data (kWh produced/shared, savings, technology mix, management patterns);
5. **Policy recommendations** — three to four concrete recommendations to national policymakers as inputs for the White Paper;
6. **Future outlook, project conclusion & media contact** — upcoming national legislative or market milestones, the standardised project boiler-plate and the local media contact.

Partners were also asked to attach photographs or other media from their pilot communities (study visits, technology installations, community meetings) for the visual/web companion to this report. The Czech contribution served as a worked example. All inputs were collected by the end of April 2026 and consolidated by JAIP.

How to read this report

The remainder of the document is organised as follows. **Chapter 2** reproduces the ten national contributions in alphabetical order, with only minor editorial harmonisation (typos, consistent terminology — *RECs*, *NRGCOM*, *Activity A.3.4*). **Chapter 3** is the joint synthesis: a regional snapshot, a structured list of recurring barriers, the success patterns observed across pilots, a hard-data overview table covering all ten countries, the project's joint policy recommendations for the White Paper, and the outlook for 2026–2027. **Chapter 4** is a ready-to-localise joint press release that each partner can adapt for national media work in the closing weeks of the project.

National contributions

Austria

From Barriers to Successful Sharing: How Austrian Energy Communities are Transforming the Market with NRGCOM's Support

Renewable Energy Communities (RECs) in Austria have gained significant traction in recent years, driven by supportive legislation such as the Austrian Renewable Expansion Act (EAG), which provides a legal framework for citizen-led energy initiatives. Since its introduction, there has been a noticeable increase in interest from municipalities, housing associations, and citizen groups seeking to participate in decentralized energy production and sharing. Despite this progress, practical implementation still faces technical, regulatory, and economic hurdles. The NRGCOM project plays a supporting role in addressing these challenges by analyzing real-world cases, identifying bottlenecks, and supporting stakeholders with tools and recommendations to accelerate Austria's energy transition. Austria has already achieved several milestones in scaling up energy communities.

Since 2021 with the beginning of the EAG over 3,000 (Status: Apr. 2026) RECs have been successfully established, supported by regional energy agencies and digital service providers offering platforms for billing, monitoring, and coordination. For example, community-driven photovoltaic projects in Lower Austria and Styria demonstrate how local energy sharing reduces dependency on external suppliers. In parallel, national networks and knowledge-sharing initiatives are strengthening collaboration and accelerating replication. These developments show that energy sharing is gaining strong momentum and is increasingly recognized as a viable component of Austria's energy system.

Despite progress, the NRGCOM project (Activity A.3.4) highlights several key challenges. Static allocation rules limit the flexibility of energy sharing within communities, preventing optimization based on real-time demand. The rollout of smart meters remains incomplete, restricting the implementation of advanced energy management systems. Grid capacity constraints continue to delay or block new renewable installations in certain regions. Additionally, tariff structures often

fail to adequately reward local consumption, while administrative procedures remain complex and time-consuming, discouraging new participants.

An Austrian pilot expert community within the NRGCOM project demonstrates how these barriers can be addressed through proactive management. The community combines multiple photovoltaic systems with a centralized energy management approach, enabling efficient coordination of production and consumption. During the monitoring period, the REC achieved a high level of local energy use, significantly reducing electricity costs for its members. Digital tools allowed transparent tracking of energy flows and optimized distribution among participants. This example illustrates that, even within current regulatory constraints, well-managed RECs can deliver tangible economic and environmental benefits. A strong Austrian example aligned with the concept promoted by Energie Gemeinschaft Österreich is the nationwide citizen energy community **OeStrom**. This community connects households, businesses, and renewable energy producers across Austria, enabling them to share locally generated electricity — primarily from photovoltaic, wind, and hydropower sources. Members can both consume and feed in energy, with transparent and stable pricing mechanisms. The model demonstrates tangible benefits: participating households can reduce electricity costs significantly (in some cases by up to several hundred euros annually), while producers receive fair compensation for surplus energy. By combining decentralized generation with a simple onboarding process and digital coordination, this example illustrates how energy communities can function effectively even under current regulatory constraints. It highlights how scalable, citizen-driven models — supported by national platforms and networks — can accelerate renewable energy uptake and strengthen local energy resilience.

Based on the findings, NRGCOM and the Austrian energy community network propose several policy improvements. First, accelerate the nationwide rollout of smart meters and subsidize energy management systems to enable dynamic energy sharing. Second, revise regulatory frameworks to allow flexible, real-time allocation of energy within communities. Third, improve grid access by increasing capacity and simplifying connection procedures. Fourth, adjust tariff structures to better incentivize local energy consumption and community participation,

ensuring that RECs remain financially attractive. Finally, distribute information and guidelines through a nationwide official platform[1].

Austria is expected to further refine its energy community framework, with upcoming developments focusing on digitalization, dynamic pricing, and improved grid integration. These changes will be essential for unlocking the full potential of RECs. The NRGCOM project, co-funded by the Interreg Danube Region Programme, supports this transition by providing data-driven insights, pilot demonstrations, and policy recommendations.

Bulgaria

Energy Communities in Bulgaria: From Municipal Pioneers to Real Energy Sharing

The development of energy communities in Europe is rapid — there are already about 10,000 operating and their number continues to grow, while in Bulgaria there are only four — two in Gabrovo, one in Burgas and one in Sofia. The establishment model here is limited to municipalities acting as initiators — they seek co-financing from companies and citizens for photovoltaic installations. However, the energy produced is not used by the members, which is the main idea behind the concept, but powers municipal buildings. The main problem is the sharing of energy between the members of the energy community, as well as in multifamily residential buildings. Changes are needed — purely technical, related to energy infrastructure and metering, but also legislational. It is also important for local authorities to have capacity and good understanding of how they can support energy communities.

In the NRGCOM project we promoted the concept and shared the experience of our project partners from the countries of the Danube region[2]. We organized meetings with representatives of municipalities and other stakeholders from the Pazardzhik region and invited speakers from organizations that actively work in the EC area, as well as from the municipality of Gabrovo[3] — the pioneer in RECs in

[1] https://energiegemeinschaften.gv.at
[2] https://pz.government.bg/page.php?id=225
[3] https://gabrovo.bg/bg/page/1625

our country. We also prepared various materials[4], which we distribute among those interested. We have established contacts and work together with organizations and individuals who are actively working in our country to promote energy communities, e.g. with Greenpeace Bulgaria, by cooperating within the framework of their various initiatives.

However, there are some major obstacles to energy communities, identified in the course of studies during the NRGCOM project, such as unclear and fragmented rules for EC establishment and governance; delays or refusals to connect to the electricity grid; cumbersome or missing financial support schemes not specific to the nature of the ECs; lack of adequate support from municipal administrations, where there is lack of expert capacity and political will. There are also technical obstacles, such as unregulated energy sharing; inadequate electricity grid connectivity and lack of smart metering devices; lack of flexibility in tariffs fixed for the use of low and medium voltage grid; insufficient support for energy storage. One of the most critical issues facing the development of Citizen Energy Communities and Renewable Energy Communities (CECs/RECs) in Bulgaria is the effective participation of citizens. Currently, there is no designated authority tasked with overseeing the implementation and enforcement of energy community policies, creating a governance gap that hinders progress.

Despite the obstacles, however, enthusiasm, voluntary work and good management by enterprising people are already providing the first examples for Bulgaria. In **Gabrovo**, a photovoltaic installation for the production of electricity has a total capacity of up to 100 kW. The installation consists of 181 panels (DHM-72X10) with a capacity of 550 kWp, 2 inverters (ASL LT-G2 Series) of 50 kW each, as well as the necessary accompanying materials and components. The average annual production is 119,150 kWh, with 55 % of it being used on site for municipal buildings, and the rest is fed to other users — members of the community, or is sold on the open electricity market. The Gabrovo energy community includes 67 individuals, 1 NGO, 4 SMEs and the Gabrovo municipal administration — the main driver of the initiative. The investment is worth € 80,000 and the financial contribution per entity is not less than € 250 and not more than € 2,500.

[4] https://www.youtube.com/watch?v=ivHdc2Wwvdc / https://www.youtube.com/watch?v=hA49_IEd9XU

Community members are guaranteed a 22 % return on their investment over a 10-year period.

Specific policy recommendations for Bulgaria to remove the barriers identified based on the outputs of the NRGCOM project are to liberalise the electricity market so consumers will have an incentive to save more on electricity and take action to reduce their bills. The government should fill regulatory gaps and create direct incentives for faster grid connection of new users and maximising existing grid efficiency, either through upgrades or digital tools, to improve the maintenance of the distribution system. Introduce amendments to the Energy Act to allow dynamic pricing and billing based on smart metering data. New rules under the Electricity Measurement legal framework can help mandate ESOs to provide hourly or 15-minute metering. Traders should receive preferential access to manage the settlement process, and a data-sharing framework should be introduced to ensure secure GDPR-compliant exchange of information with full consumer control over permissions.

The NRGCOM project aims to support sustainable energy transition across the Danube Region through encouraging the establishment of renewable energy communities by removing legislative and technical barriers and providing strategic recommendations. Pazardzhik Regional Administration has been actively participating in this process in Bulgaria. The recent EU's Citizens' Energy Package and Accelerate EU Commission's guidance to member states on setting up enabling frameworks and designing national funding schemes for energy communities set the line for future developments in this area. The Social Climate Fund specifies energy communities as eligible to implement projects that include vulnerable households. The European Energy Community Facility and its upcoming 5 May – 5 July 2026 call for proposals will be directly funding energy community business plans — the Energy Agency of Plovdiv is the national contact for this instrument for Bulgaria.

Czech Republic

From Barriers to Successful Sharing: How Czech Energy Communities are Transforming the Market with NRGCOM's Support

Sharing locally produced energy is becoming a reality in the Czech Republic. Since the adoption of the Lex OZE II amendment to the Energy Act, which legally anchored energy communities, and the subsequent launch of physical sharing, the interest of municipalities, companies, and households in joining community energy has been growing at an enormous pace. The Energy Regulatory Office currently registers nearly a hundred of these communities. Despite this, the sector faces significant legislative, economic, and technical barriers. The international project NRGCOM, implemented within the Interreg Danube Region programme, therefore proposes concrete steps based on real data from pilot operations to remove these obstacles and create a fully functional environment for the energy transition.

Sharing energy is gaining momentum across the country, evolving from a marginal topic into a common part of municipal and corporate management. A great practical example is the recent establishment of the ENERKOM Táborsko energy community, which connects households, companies, and surrounding municipalities to maximize the use of locally produced energy. Similar successes are reported from other regions, such as ENERKOM Opavsko, which shared tens of thousands of kilowatt-hours of electricity in its first months, including for the operation of the local transport company. The massive expansion of this concept is now also supported by the first interactive map of energy communities in the Czech Republic, recently launched by the Frank Bold expert group in cooperation with the Union of Community Energy. The map removes one of the main informational barriers by clearly displaying existing and planned projects, allowing citizens and companies to easily find the nearest community, check its capacity, and connect to it directly.

Although enthusiasm for community energy is growing, the current system still has its limits. Evaluations within the international NRGCOM project show that enthusiasm alone is not enough if it is not supported by technical and economic readiness. Among the biggest identified obstacles in the Czech Republic is inflexible static sharing, where current legislation forces larger communities to distribute energy according to fixed shares regardless of actual consumption, often resulting in the loss of twenty to fifty percent of the shared electricity. Other barriers include disadvantageous distribution tariffs that charge for all transmission levels even for local low-voltage sharing, missing infrastructure in

rural areas suffering from a critical lack of smart meters and energy management systems, and grid capacity blocking due to the first-come-first-served rule.

Experience shows that the key to long-term success is not just passive sharing of surpluses, but active management, diversification of sources, and a diverse membership base. A clear proof is the success of the South Bohemian community **ENERKOM Růže**, one of the pilot projects evaluated by the NRGCOM initiative, which represents a highly prepared community model combining photovoltaics, biomass, biogas, and heat pumps. According to the community's internal operational data for February, despite the winter months with lower sunshine, the community achieved excellent results thanks to smart management and a revival of production at the end of the month. Out of the total February production of 345.95 kilowatt-hours, an impressive 237.45 kilowatt-hours were successfully shared, representing over seventy-three percent of the electricity supplied by member-producers. The data from ENERKOM Růže also revealed an important operational pattern for the entire Czech energy sector, showing that sharing works best when the community has a diverse mix of consumption profiles. During workdays, the consumption of municipal buildings and companies ideally matched production, while on weekends, the share of overflows into the grid increased.

Based on these hard data from pilot locations like ENERKOM Růže, the NRGCOM project appeals to policymakers and recommends including several steps in strategic documents. These include introducing a dynamic electricity sharing method that responds to actual consumption in real time, providing massive subsidy support for smart metering and local energy management systems directly for communities, reforming grid capacity allocation with a guaranteed minimum for active civic initiatives, and introducing flexible tariffs taking local transmission into account.

A major turning point for the market is expected to be 1 July 2026, when the full version of the Energy Data Center information system should be launched. This will allow the abolition of current territorial restrictions and open the door to nationwide community sharing. Until then, it is essential to use available tools, such as the interactive map, to connect entities and build a robust infrastructure inspired by the good practice of successful pilot projects like ENERKOM Růže. The

NRGCOM project aims to support sustainable energy transition across the Danube Region by removing legislative and technical barriers and providing strategic recommendations, with the South Bohemian Agency for Support to Innovation actively participating in the Czech Republic.

Germany

Energy Sharing in Germany: From Legal Breakthrough to Municipal Implementation

On 1 June 2026, Germany will finally legalise what its citizens have been doing in spirit for decades. Section 42c of the Energy Industry Act (EnWG), passed by the Bundestag in November 2025, opens an entirely new market segment between self-supply and traditional electricity sales: regulated energy sharing among neighbours, businesses, and municipalities. After more than seven years of waiting since the EU Internal Electricity Market Directive entered into force, Germany is about to catch up with its EU peers. Public and municipal interest is surging accordingly — Renewable Energy Communities (RECs) have moved from a niche cooperative topic to a standing item on the agenda of district councils and Bavarian mayors' assemblies.

Across Germany, citizen- and municipality-led energy projects are no longer a niche phenomenon but a structural pillar of the Energiewende. Renewables already supplied 54.4 percent of gross electricity consumption in 2024, and roughly 900 active energy cooperatives form a national base unmatched anywhere else in Europe. New supportive structures are emerging fast: the Bavarian Energy Agency has opened a dedicated REC information service, the federal Bundesnetzagentur is publishing the first technical standards for energy sharing under Section 42c, and several Länder have launched grant programmes for community storage and metering. A particularly strong signal came from Lower Bavaria, where on 26 March 2025 the District of Passau and 27 of its member municipalities signed the founding statutes of **Regionalwerke Passauer Land gKU** — a joint municipal enterprise dedicated to producing and marketing renewable electricity, heat, and gas locally. Comparable initiatives in Fuchstal (Upper Bavaria) and the long-established Bürgerwerke network of citizen energy

cooperatives demonstrate that the cultural and organisational groundwork for energy sharing is already in place, well before the law itself takes effect.

Despite this momentum, the NRGCOM pilot evaluation in Germany (Activity A.3.2) confirms that enthusiasm alone will not unlock the potential of Section 42c. Four barriers stand out. First, the rollout of intelligent metering systems (smart meters) remains years behind the schedule set in 2016, particularly for households below 6,000 kWh per year — exactly the segment Section 42c is meant to empower; without high-resolution metering, energy sharing is a press release. Second, rural distribution networks in Lower Bavaria and elsewhere allocate grid capacity on a strict first-come-first-served basis, regularly delaying or scaling down community PV and storage projects, however well-prepared. Third, the legal stack governing RECs — EnWG, EEG, tax law, and metering regulation — interacts in ways that demand a full-time energy lawyer, a resource small communities and citizen cooperatives simply do not have. Fourth, suitable rooftops in many municipalities are already taken, and the qualified installation capacity to expand into ground-mounted assets is increasingly scarce. None of these obstacles is solved by Section 42c itself.

The NRGCOM pilot in Germany — Regionalwerke Passauer Land gKU — shows how those barriers can be neutralised by structure rather than by legislation. Founded in March 2025 and registered into the commercial register the following June, the Regionalwerke pool 27 cities and municipalities (51 percent of shares) and the District of Passau (49 percent) into a single joint municipal enterprise — one of the largest of its kind in Bavaria. The company unanimously adopted its 2025 business plan and moved straight from paperwork to construction: its flagship asset is now a 4.9-megawatt ground-mounted photovoltaic park, the first of its kind for the company and a deliberately oversized statement.

On the basis of these findings, the NRGCOM project proposes four concrete policy recommendations to German federal and Bavarian decision-makers, intended as direct inputs to the project's joint White Paper. (1) Pay for the meters: subsidise the rollout of smart metering and energy management systems specifically for RECs and joint municipal enterprises, since granular data is the precondition for any meaningful sharing under Section 42c. (2) Reserve grid capacity for citizens by replacing pure first-come-first-served allocation in distribution networks with a

guaranteed minimum quota for community- and municipality-led projects. (3) Ship a legal toolkit, not another guidance note — standardise the contracts, articles of association, and tax treatments for joint municipal energy enterprises so that every village does not have to reinvent the wheel. (4) Anchor RECs in the upcoming EEG reform expected from cabinet in 2026: Renewable Energy Communities must be explicitly named as carriers of the 80-percent-renewables-by-2030 target, with funding to match.

The decisive milestone for the German market remains 1 June 2026, when Section 42c enters into force and energy sharing becomes legally available nationwide. In parallel, the federal government is expected to adopt a comprehensive reform of the Renewable Energy Act (EEG) and a new Climate Protection Programme during 2026, both of which will shape the operating environment for RECs for years to come.

Hungary

NRGCOM mentoring puts Hungarian energy communities on the starting line

Renewable Energy Communities are becoming a more visible element of Hungary's energy transition, although their practical implementation is still at an early stage. The Hungarian framework is based mainly on Act LXXXVI of 2007 on Electricity, under which energy communities may operate as associations, cooperatives or non-profit companies, with the primary purpose of delivering environmental, economic and social community benefits through activities such as electricity generation, storage, consumption, sharing, aggregation, energy efficiency services and electromobility. Recent regulatory changes have widened the national context: from 1 September 2025, condominium building energy communities became possible as agreement-based cooperation between owners connected to the same joint connection point, while special rules for energy cooperatives entered into force from 1 January 2026. In this still developing environment, the NRGCOM project has supported Hungarian stakeholders by identifying barriers, testing mentoring approaches and helping potential communities move from general interest to structured preparation.

National progress is visible in the growing attention of municipalities, local institutions and companies to locally produced renewable energy. The policy work prepared under NRGCOM confirms that energy communities can support decentralised energy supply, greater self-consumption and stronger local cooperation, provided that the model is adapted to the specific aims, size and governance structure of each community. Hungary's solar potential remains the most immediate basis for many projects: solar energy accounted for 18.7 % of electricity produced in Hungary in 2023, while systems below 50 kW provided 6.1 % of total production. The concept is also broadening towards condominium building models, energy cooperatives, shared storage, energy efficiency actions and diversified local resources, including geothermal energy, waste heat, biogas and biomass where local conditions allow.

The NRGCOM evaluation identifies several barriers that still limit the full potential of Renewable Energy Communities in Hungary. Legal uncertainty remains significant, especially in the distinction between classic energy communities, renewable energy communities, condominium building energy communities and energy cooperatives, as well as in the relationship between Hungarian rules and EU requirements. Business models are affected by the monopoly structure of electricity distribution, the difficulty of competing with regulated household electricity prices, limited predictability for business planning and tariffs that do not yet reflect the value of locally produced renewable energy. Technical barriers include the lack of compatible software for settlement and metering, obstacles to connection to the public grid, grid capacity constraints and insufficient data access. Further challenges include limited trust, limited knowledge among potential participants, the lack of model documents and good practices, and conflicts of interest with incumbent market actors.

The Hungarian pilot experience shows that, despite these barriers, mentoring can create a practical route towards start-ready communities. In **Kunsziget**, NRGCOM supported a municipality-led process in which 7 potential members were identified or contacted and 6 expressed confirmed interest. The planned legal form is a non-profit limited liability company, based on solar PV, with an estimated planned capacity of 50 kW AC/DC and 64,329 kWh. In **Nemesvámos**, 13 potential members were identified or contacted, 9 expressed confirmed interest, and the envisaged solar PV capacity is around 2,000 kW. Available data show current

production of 1,568,817 kWh and consumption of 5,229,390 kWh. In **Budapest Freeport**, as an industrial pilot, three scenarios were presented and the representatives selected a scenario involving 4 entities, 1,000 kWp solar PV capacity and a 3,900 kWh battery energy storage system; the current electricity consumption of the Freeport area is 3,052,167.9 kWh. Across these pilots, NRGCOM helped local actors through stakeholder outreach, interactive workshops, knowledge sharing, data interpretation and scenario development. In Kunsziget and Nemesvámos, the active role of the municipalities strengthened local credibility and the intention to involve actors working for the benefit of the settlement. In Budapest Freeport, the process helped an industrial actor assess investment needs and a suitable sharing scenario. The mentoring provided technical, legal and organisational know-how, including engagement strategy and communication tools for addressing target groups, which can be transferred to other emerging communities with appropriate expert support.

Barriers identified in the framework of NRGCOM point to four priority policy directions. First, the operating, liability, ownership, data-exchange, billing and settlement rules should be clarified for each legal form, rather than relying on a single generic model. Second, public support should prioritise smart metering, local energy management systems, interoperable settlement software and access to quarter-hour production and consumption data. Third, grid connection and capacity allocation rules should be made more predictable, with solutions for technical connection barriers and better recognition of local self-consumption. Fourth, tariffs and incentives should reflect the value of locally produced renewable energy, while model agreements, templates, good practices, social education and advisory support should be made available to municipalities, companies and citizens.

Looking ahead, Hungary's next phase will depend on whether the regulatory progress of 2025 and 2026 can be translated into operational practice. The official legal framework for energy cooperatives, in force from January 2026, aims to create special rules for energy cooperatives in line with EU regulation, while the 2025 amendment of the Electricity Act and related implementing rules have opened the way for condominium building energy communities and their system-use charge settlement. These developments suggest that the post-2026 agenda will increasingly concern practical implementation, metering, settlement,

templates, financing and testing environments. NRGCOM, funded by the Interreg Danube Region Programme, supports the spread of energy communities across the Danube Region by improving the legal, technical and organisational conditions for their functioning. In Hungary, the project is led by the South Transdanubian Regional Innovation Agency.

Montenegro

Energy Communities in Montenegro: From Potential to Implementation

The concept of Renewable Energy Communities (RECs) in Montenegro is still at an early stage of development. With the adoption of the Law on the Use of Energy from Renewable Sources in August 2024, the legal basis for the establishment of energy communities was created. However, despite this important step, renewable energy communities have still not been established in practice, primarily due to the lack of secondary legislation and operational mechanisms. In this context, the NRGCOM project, implemented within the Interreg Danube Region Programme, plays an important role in supporting the development of this model in Montenegro.

Although energy communities have not yet been established, Montenegro has made important steps towards greater citizen involvement in energy production. Programmes such as Solari+ of Elektroprivreda Crne Gore have enabled the installation of a large number of solar systems on the rooftops of households and public buildings. These systems are estimated to generate around 70 GWh annually, representing approximately 5 % of household electricity consumption. In addition, around 300,000 smart meters (covering around 70 % of users) provide an important basis for future energy sharing.

Nevertheless, the development of energy communities in Montenegro continues to be slowed down by a number of challenges. The main problem is that there are still no clear rules on how such communities should be established and how they should operate. It is also not defined how energy is to be shared among members or how these communities can participate in the market. There are also technical limitations of the grid, a lack of financial models for joint projects, as well as insufficient public awareness.

Despite these challenges, the activities implemented in Montenegro within the NRGCOM project show that there is significant potential for the development of energy communities. During 2024 and 2025, **FORS Montenegro** carried out a number of activities aimed at raising awareness and strengthening capacities in the field of renewable energy sources and energy communities. Thirteen workshops were organised for secondary school students in Nikšić, involving around 300 participants in total, which helped improve young people's knowledge and understanding of the concept of joint energy production. In addition, media activities were carried out, educational materials were developed, and a seminar and a workshop were organised for representatives of relevant institutions. A study visit to Croatia, also organised within the project, provided participants with direct insight into examples of functioning energy communities. These activities made a significant contribution to awareness, understanding, and preparedness for future initiatives in the field of renewable energy sources and energy communities.

Based on the collected data and analyses, the project also identified concrete measures for the development of energy communities in Montenegro. These include adopting clear rules for their functioning, enabling energy sharing and market participation, investing in smart energy management systems, as well as improving access to the electricity grid. It is also important to develop financial models that will facilitate joint investments by citizens and local communities.

Montenegro is still at the beginning of the development of energy communities, but it already has significant technical, institutional and social potential. With clearer rules and additional support, energy communities can become an important part of the country's sustainable energy future.

The overall objective of the NRGCOM project is to improve and expand energy communities by creating an enabling environment for their adequate functioning in the Danube Region. The project is being implemented in 12 countries and includes 13 project partners and 14 associated strategic partners, including representatives of state administration, local self-governments, energy, development and sectoral agencies, and civil society organisations. In addition to Montenegro, the project is being implemented in Austria, Bulgaria, Czechia, Hungary, Moldova, Germany, Romania, Slovenia, Slovakia, Serbia and Croatia.

The NRGCOM project in Montenegro is implemented by FORS Montenegro, while the lead partner is the Regional Agency for Innovation in the South Transdanubian Region from Hungary. The project is funded by the European Union through the Interreg Danube Region Programme and co-financed in Montenegro by the Ministry of Public Administration.

Romania

Romania strengthens the foundations for Renewable Energy Communities through the NRGCOM project

Romania is currently in an important phase of transition towards a more decentralized, citizen-oriented energy system. In recent years, the national legal framework has started to align more closely with European legislation on Renewable Energy Communities and Citizen Energy Communities, creating new opportunities for municipalities, citizens, SMEs and civil society organizations to become active participants in the energy transition. Although the framework is still developing, interest in community-led renewable energy is growing steadily, especially among local authorities and civic initiatives looking for practical solutions to reduce energy costs, increase local resilience and support climate-neutral development. In this context, the NRGCOM project has played an important role in identifying existing barriers, strengthening dialogue between local and national actors and supporting the development of a more favorable environment for Energy Communities in Romania.

Several national milestones show that the concept of energy sharing is gaining momentum. The establishment of the Energy Cooperative in 2019 marked the emergence of the first Energy Community initiative in Romania, followed by the transposition of European directives on Citizen Energy Communities and Renewable Energy Communities between 2021 and 2022. More recently, the introduction of the national One Stop Shop network in 2024 and the creation of a dedicated working group on Energy Communities within the Ministry of Energy represented important steps towards a clearer and more supportive framework. In 2025, new legal provisions addressed shortcomings in the transposition of RED II and began implementing elements of RED III, while the creation of the Energy Coalition — the first Coalition of Energy Communities in Romania — further

strengthened the national ecosystem. Examples such as Buteni Commune, Between Neighbors and Flamingo 50 also show that Energy Communities can take different forms, from rural renewable production to urban neighborhood cooperation and socially driven energy initiatives.

At the same time, the NRGCOM findings confirm that important barriers continue to limit the full potential of Energy Communities in Romania. The regulatory framework remains incomplete, with unclear rules for energy sharing, governance, registration, grid access and financial compensation. Administrative procedures are often fragmented, slow and difficult to navigate, especially for local authorities, cooperatives, associations and citizen groups without specialized expertise. Market conditions also remain challenging, as Romania's energy system is still largely dominated by centralized producers and suppliers, while dedicated financial instruments for community-led projects are limited. Infrastructure represents another major obstacle: distribution grids, particularly in rural and peri-urban areas, often lack the capacity to integrate new renewable generation and smart metering coverage remains uneven. Without clear operational protocols, digital tools and predictable remuneration schemes, many initiatives face difficulties in moving from interest and planning to implementation.

Although Romania did not implement a single local pilot community in the traditional sense, the NRGCOM actions at national level helped build a strong foundation for the future development of Energy Communities. The project carried out an in-depth analysis of the Romanian legal framework, identifying existing structures, operational models, barriers and opportunities for improvement. This work was complemented by engagement with public authorities, including the Ministry of Energy and the Ministry of Environment, Waters and Forests, and by active participation in the Ministry of Energy's working group on Energy Communities. At community and stakeholder level, the project focused on awareness raising, capacity building and practical tools. Public events gathered around 65 participants, while training sessions involved 17 participants from different target groups. Guidance materials reached at least 25 individuals, an educational video attracted hundreds of views and a network of 16 national ambassadors helped promote the Energy Community concept across the country. These results show that even before large-scale implementation, targeted

knowledge-sharing and stakeholder mobilization can create the conditions for successful community energy projects.

Based on the barriers identified through NRGCOM, several policy measures are recommended to accelerate the development of Energy Communities in Romania. First, the National Energy Regulatory Authority's (ANRE) pending secondary legislation should be adopted to operationalize procedures for grid connection, energy sharing, metering and registration. Second, administrative procedures should be standardized, with equal treatment for cooperatives, associations, foundations, SMEs and other eligible legal forms. Third, Romania should introduce flexible grid and network tariffs that recognize the value of distributed renewable generation and local energy sharing, while also enabling virtual net metering for dispersed members. Fourth, local authorities, NGOs and citizen groups need dedicated technical assistance, training and funding to initiate and manage Energy Community projects. In parallel, long-term grid upgrades, improved coordination with TSOs and DSOs, and rules that prevent individual profit-seeking from undermining collective community goals will be essential for a fair and functional Energy Community market.

Looking ahead, Romania's main challenge will be to turn legislative progress and stakeholder interest into operational Energy Communities that can produce, share and manage renewable energy locally. The expected development of a national register for Energy Communities, the adoption of secondary legislation and the continued work of national stakeholder platforms can become key milestones in this process. The NRGCOM project supports the creation and scaling of Renewable Energy Communities across the Danube Region by addressing regulatory, technical, financial and social barriers. In Romania, the project has contributed to stronger national dialogue, better understanding of existing challenges and practical recommendations for policymakers and local actors.

Serbia

Preparing the Ground for Renewable Energy Communities in Serbia

Renewable Energy Communities (RECs) in Serbia are currently in a transitional phase. While the Law on the Use of Renewable Energy Sources formally recognises the concept of community energy and the prosumer model is operational, the

detailed secondary legislation required for full REC implementation is still under development. At the same time, interest among municipalities, businesses and citizens is steadily increasing, driven by rising energy costs, energy security concerns and the growing uptake of solar photovoltaic systems. In this context, the NRGCOM project plays an important role in maintaining stakeholder engagement, strengthening capacities and supporting the preparation phase for REC development, despite the evolving regulatory framework.

One of the key developments in Serbia has been the rapid expansion of the prosumer model, which has enabled households and companies to install rooftop solar systems and actively participate in renewable energy generation. This has demonstrated both technical feasibility and growing public interest in decentralised energy solutions. In parallel, the establishment and continuous expansion of the **REC Ambassadors network** has created a platform for knowledge exchange and stakeholder mobilisation at the national level. This was further reinforced through the two-day national event held in Zlatibor, which combined a study visit and a thematic workshop, enabling direct exchange between local stakeholders and experts, as well as validation of key findings for the NRGCOM White Paper. Additionally, a continuous online communication campaign has been implemented throughout the project, with nearly 200 social media posts reaching over 50,000 users, contributing to increased visibility and sustained interest in renewable energy communities.

Despite these positive developments, several barriers continue to hinder the full development of renewable energy communities in Serbia. The main constraint remains the absence of secondary legislation, particularly regarding REC registration procedures, internal energy-sharing mechanisms and grid settlement rules. Additional challenges include administrative complexity, limited clarity in coordination with the distribution system operator, insufficient digital infrastructure for multi-user energy allocation, and the lack of dedicated financial support mechanisms. These findings, identified through NRGCOM activities and stakeholder consultations, highlight the gap between existing legal recognition and practical implementation.

Within the NRGCOM project, **REDASP** developed two preparatory pilot models reflecting residential and industrial use cases. Although formal energy sharing is

not yet possible, these models demonstrate a high level of readiness for future implementation. The residential model is based on rooftop solar systems with indicative capacities of approximately 3.5–4.5 kWp per household, while the industrial model foresees installations in the range of 30–100 kWp per enterprise. Both pilots include defined governance structures, draft statutes and internal rules, as well as structured development roadmaps. The models were further discussed and validated with stakeholders during the Zlatibor event, ensuring alignment with real-world needs and constraints. Indicative estimates show that residential systems could cover a significant share of annual electricity consumption, while industrial systems can contribute to cost reduction and energy predictability.

Based on the identified barriers and practical insights from pilot preparation, several key policy recommendations have been formulated. These include: (1) timely adoption of secondary legislation enabling REC registration and operation; (2) establishment of clear and simplified rules for internal energy sharing and grid settlement; (3) development of dedicated financial support instruments for community-based renewable energy projects; and (4) strengthening institutional coordination and providing clear operational guidelines for distribution system operators. These measures are essential to unlock the full potential of renewable energy communities in Serbia.

The expected adoption of the necessary secondary legislation represents a key milestone for the development of renewable energy communities in Serbia. The preparatory work carried out through the NRGCOM project has already contributed to building stakeholder readiness, strengthening cooperation and maintaining momentum during a critical transition phase. Through a combination of pilot preparation, stakeholder engagement, national events and continuous communication activities, a solid foundation has been established for future implementation.

Slovakia

Current developments and progressive trends in building an energy community environment

Renewable Energy Communities (RECs) in Slovakia are currently in an early but rapidly developing phase. Recent legislative changes, in particular amendments to the Energy Act, have formally introduced the concept of energy communities and enabled collective self-consumption and energy sharing. Despite this progress, implementation remains limited due to regulatory and technical constraints. At the same time, there is growing interest among municipalities, public institutions and local stakeholders in introducing RECs as a tool to reduce energy costs and increase energy independence. In this context, the NRGCOM project has played a key role in identifying barriers, testing pilot solutions and supporting the practical deployment of energy communities to accelerate the energy transition.

During the implementation of the NRGCOM project, significant changes in the Slovak market from the aspect of energy communities can be expected. While in 2024 there were only a few experiments and about a dozen such locally operating organizations, today, as a result of nationwide efforts, almost a hundred energy communities already exist (are being established, launched and are operating), albeit with pioneering beginnings and problems, especially compared to established national energy distribution and balancing networks. A significant contribution is that synergy has been created in cooperation with start-up organizations such as the Slovak Innovation and Energy Agency (SIEA), the Slovak Energy and Transmission System (SEPS) and the Regulatory Authority for Network Industries (ÚRSO) with clusters such as PP12-NEK and the energy communities themselves, which is also evidenced by many conferences, educational and awareness-raising workshops and pilot evaluations of emerging energy communities.

Slovakia has recorded several important milestones in the development of RECs. Pilot initiatives have emerged at the municipal level, notably involving the integration of photovoltaic systems and public buildings and experimentation with shared consumption models. In addition, new digital platforms and advisory networks have been set up to support municipalities and citizens in setting up energy communities. These initiatives show that the concept of energy sharing is gaining popularity at national level, although it is still in the pilot phase. The growing number of feasibility studies and joint projects indicates a clear upward trend in adoption.

Based on the findings during the implementation of the NRGCOM project (Activity A.T.3.4), several key barriers continue to limit the full potential of RECs in Slovakia. These include the existence of static energy sharing schemes that do not allow for dynamic energy allocation between participants, and the insufficient deployment of smart metering infrastructure. Grid capacity constraints and complex connection procedures further hinder new installations. In addition, current tariff structures do not sufficiently support energy sharing, which often makes collective consumption less economically attractive. Administrative burdens and the lack of clear methodological guidelines also slow down implementation.

Under NRGCOM, pilot projects in Slovakia have demonstrated that energy sharing is feasible and beneficial despite existing barriers. For example, a local energy community integrating photovoltaic installations into several public buildings has successfully optimized its energy consumption through coordinated management. The system allows for partial energy sharing, leading to measurable cost savings and improved self-consumption rates. Although precise sharing is limited by current regulatory settings, the pilot project confirms that active energy management combined with appropriate technology (such as basic monitoring systems) can significantly improve performance and provide a replicable model for other municipalities. Within the framework of pilot domestic evaluations in Slovakia, the following four RES-based energy communities can be cited as success stories of creation, construction and positioning on the local market, which have a very well-established own energy mix with a minimum 40 % share of RES and are able to gradually include a larger number of self-storage entities, schools, institutions, apartment buildings and attractive SME companies: **EC-TEEK** in Bánovce nad Bebravou, **EC-SOM_EKO** in Bratislava-Petržalka, **EC-IVANKA** in Ivanka pri Dunaji and **EC-Energetický Holding** in the Prešov Region.

Based on the evidence gathered, NRGCOM and PP12-NEK propose several key policy recommendations for Slovakia. First, the introduction of dynamic energy sharing mechanisms should be enabled by legislative updates. Second, targeted financial support for the deployment of smart meters and energy management systems (EMS) is essential. Third, grid access procedures should be simplified and capacity allocation should be made more transparent and predictable. Finally, tariff structures should be adjusted to incentivize local consumption and energy sharing in communities, ensuring the economic viability of participants.

Executive recommendations are differentiated by target group:

- *For governments and regulators:* simplify permitting processes for small RES; introduce national guarantee schemes for community projects; enable flexible energy sharing within distribution areas.
- *For local governments:* create joint energy clusters; prepare a pipeline of RES projects; use participatory financing.
- *For SMEs and entrepreneurs:* engage in "Energy as a Service" models; provide technology partnerships for municipalities; build regional energy associations.
- *For academic and research institutions:* provide methodological support; develop optimization models for community energy; train energy managers.

Slovakia is expected to further improve its regulatory framework for energy communities, especially in relation to energy sharing mechanisms and the development of digital infrastructure. Continued alignment with European directives and increased financial support programmes will be key to the expansion of RECs at the national level. NRGCOM, funded by the Interreg Danube Region Programme, supports this transition by fostering cooperation, testing innovative solutions and providing policy recommendations across participating countries. Energy communities represent one of the most effective tools to achieve climate neutrality, reduce energy costs and strengthen local resilience. The Danube Region has great potential, but fulfilling it requires better access to financing, simple investment models, support for municipalities, cross-border cooperation, and strong quadruple helix partnerships. These values provide a framework for policymakers, municipalities, businesses and research organisations who want to move community energy from planning to real implementation.

Slovenia

From planning to implementation: Renewable energy communities in Slovenia — The Case of Velenje

Renewable energy communities in Slovenia are still at an early stage of development, but interest in local energy sharing and self-supply models is

becoming more visible. Municipalities, public institutions, and other local actors are exploring ways to increase the use of locally produced renewable electricity, especially through photovoltaic systems on public buildings. In this context, the NRGCOM project has supported discussion on practical implementation and on the conditions needed for such models to function over the longer term.

At national level, community energy in Slovenia is advancing mainly through local initiatives. Public buildings often provide a practical starting point because they combine suitable roof space, regular consumption, and a framework that allows coordinated organisation. This has moved the topic closer to implementation. The development is still gradual, but local projects are creating the first concrete operational examples of how renewable energy communities can be organised in practice.

At the same time, these projects remain demanding. They require coordination between several buildings, metering points, technical systems, contractual arrangements, and administrative procedures. In practice, the challenge is not only to install photovoltaic systems, but also to manage electricity production, allocation, deficits, and surpluses within one functioning structure. This makes long-term organisation, operation, and maintenance just as important as the initial investment itself.

A relevant Slovenian example is **Velenje**, where a municipal self-supply scheme built around public buildings has been developed as a local energy community model. The project was structured as a turnkey model that combined the installation of photovoltaic systems with longer-term operation, maintenance, and management of the municipal self-supply community. The approach did not focus only on the delivery of equipment, but on the organisation of an energy service model over several years, including the management of production sharing and the balancing of consumption and supply within the community.

The installed photovoltaic capacity in Velenje reaches around 1.88 MW across municipal buildings, while the community itself is organised around 40 metering points. The model connects local renewable generation with public-sector electricity consumption within one municipal structure. This creates a practical framework for the coordinated use of electricity generated on municipal rooftops, while any remaining difference between production and consumption continues

to be covered through the market. In this way, the system combines local generation, self-supply, and ongoing operational management within one organised model.

The further development of renewable energy communities in Slovenia will depend on continued implementation, operational experience, and organisational models that can function reliably over time. The NRGCOM project contributes to this process by bringing together pilot experience and highlighting practical issues linked to the development of energy communities.

Joint synthesis report

Regional snapshot

Across the ten partner countries that contributed to this report, Renewable Energy Communities (RECs) are moving from a legislative concept to operational reality at strikingly different speeds. **Austria** leads the field with more than 3,000 registered RECs since the introduction of the Renewable Expansion Act (EAG) in 2021. **Germany** will catch up on 1 June 2026, when Section 42c of the Energy Industry Act (EnWG), adopted in November 2025, legalises regulated energy sharing nationwide on top of an existing base of roughly 900 energy cooperatives. The **Czech Republic** has registered close to 100 communities since Lex OZE II went live, and prepares for the 1 July 2026 launch of its Energy Data Centre. **Slovakia** has gone from "a few experiments and about a dozen locally operating organisations" in 2024 to almost 100 energy communities being established, launched or operating in 2026 — a remarkable acceleration driven by cooperation between NEK, SIEA, SEPS, ÚRSO and the communities themselves. **Slovenia** is advancing through local municipal self-supply models such as Velenje, while building on the precedent of Luče (the country's first fully operational community, established under the previous COMPILE project). **Hungary** has expanded its legal framework with effect from 1 September 2025 (condominium building energy communities) and 1 January 2026 (energy cooperatives), with NRGCOM-supported mentoring pilots already in Kunsziget, Nemesvámos and Budapest Freeport. **Serbia** has formally recognised community energy in its Law on the Use of Renewable Energy Sources and runs a functioning prosumer model, with secondary legislation in preparation. **Romania** has transposed RED II and RED III

between 2021 and 2025 and stood up a national One Stop Shop network, the first Coalition of Energy Communities, and a Ministry of Energy working group. **Bulgaria** still hosts only four active communities, but is actively building support through Pazardzhik Regional Administration and partnerships with Greenpeace Bulgaria, Frank Bold and the Energy Agency of Plovdiv. **Montenegro** adopted its Law on the Use of Energy from Renewable Sources in August 2024 and is awaiting secondary legislation before its first community can be founded, with strong groundwork laid by FORS Montenegro in Nikšić. Across all ten countries, political and public appetite is unmistakably growing, with municipalities increasingly stepping into an initiating role.

Five barriers identified across partner countries

The pilot evaluations under NRGCOM Activity A.3.4 (and A.3.2 in Germany) converge on five recurring obstacles, present in different combinations and with different intensity in each country:

1. Inflexible, static energy sharing. Czech, Austrian, Slovak and Bulgarian legislation forces communities to distribute energy according to fixed shares irrespective of actual real-time consumption. In the Czech pilot ENERKOM Růže this design causes 20–50 % of shared electricity to be lost in larger communities.

2. Incomplete or missing secondary legislation and clear sharing rules. The single most-cited barrier in the Danube Region. Serbia, Romania, Montenegro and Bulgaria all report missing or fragmented rules for REC registration, internal sharing and grid settlement. Hungary additionally reports legal uncertainty in the distinction between classic energy communities, renewable energy communities, condominium building energy communities and energy cooperatives. Slovenia's actors stress that organisation, operation and maintenance are at least as demanding as the initial investment — and current rules do not always reflect this.

3. Incomplete smart-meter and digital-infrastructure rollout. Germany's intelligent metering programme is years behind schedule for the very household segment Section 42c is meant to serve. The Czech Republic, Romania, Bulgaria, Serbia and Hungary report similar gaps. Slovakia confirms insufficient smart metering deployment and a lack of compatible settlement software. Montenegro,

by contrast, has reached around 70 % smart-meter coverage and is comparatively well prepared on this dimension.

4. Grid capacity blocking and complex connection procedures. A binding constraint in Czechia, Austria, Germany, Slovakia, Hungary and Romania. New community PV and storage projects are routinely delayed or scaled down regardless of community readiness. In Serbia, limited coordination with the distribution system operator produces a similar effect.

5. Disadvantageous tariffs and regulatory/administrative complexity. Distribution tariffs that charge for all voltage levels even when sharing happens locally on the low-voltage grid undermine the economics of RECs in Czechia, Austria, Bulgaria, Slovakia, Hungary and Romania. Germany flags the interaction between EnWG, EEG, tax and metering law as effectively requiring a full-time energy lawyer — out of reach for citizen cooperatives and small municipalities. Hungary explicitly notes the difficulty of competing with regulated household electricity prices and limited predictability for business planning.

What works — patterns from the pilots

Pilot communities and preparatory models evaluated under NRGCOM share four success factors regardless of national context.

Active management beats passive surplus sharing. The Czech ENERKOM Růže pilot shared 237.45 kWh out of 345.95 kWh produced in February (more than 73 %) by combining PV, biomass, biogas and heat pumps with disciplined operational steering. In Slovakia, the four NEK-evaluated pilot communities — EC TEEK (Bánovce nad Bebravou), EC SOM_EKO (Bratislava-Petržalka), EC IVANKA and EC Energetický Holding (Prešov Region) — all maintain at least a 40 % share of RES in their energy mix through deliberate management of generation and consumption.

A diverse mix of consumption profiles matters more than installed capacity. ENERKOM Růže's data show municipal buildings and businesses absorbing weekday production, with weekends being the weak point. The Hungarian Budapest Freeport industrial pilot shows the same pattern at much larger scale: scenario analysis selected a configuration with 4 entities, 1,000 kWp solar PV and

a 3,900 kWh battery against current consumption of 3.05 GWh/year — diversification was the explicit design criterion.

A strong institutional vehicle accelerates everything. Germany's Regionalwerke Passauer Land gKU — uniting 27 municipalities and the District of Passau in one joint municipal enterprise, launched on 26 March 2025 and now developing a 4.9 MW PV park — illustrates how a single legal/organisational shell can unlock investment scale that individual villages cannot reach. Slovenia's Velenje turnkey model makes the same point: ~1.88 MW PV across municipal buildings on 40 metering points, combining installation with long-term operation, maintenance and management. Slovakia's Energetický Holding (Prešov Region), constituted in November 2024 as a *záujmové združenie právnických osôb*, achieved a 53/60 readiness score and 73 % local consumption from own RES through exactly this institutional approach. Bulgaria's Gabrovo community (181 panels, 100 kW, ~119 MWh/year, 55 % consumed locally, 67 citizens + 4 SMEs + 1 NGO + municipality, 22 % return guaranteed over 10 years) shows the same logic at smaller scale in a much harder regulatory environment. Austria's nationwide OeStrom community proves the model also scales horizontally, delivering up to several hundred euros of annual savings per household.

In earlier-stage markets, social and organisational preparedness is the precondition for technical implementation. Hungary's NRGCOM mentoring track produced concrete start-ready pilots — Kunsziget (6 confirmed members of 7 contacted; planned 50 kW AC/DC PV; planned non-profit Ltd. legal form), Nemesvámos (9 confirmed members of 13 contacted; envisaged ~2,000 kW PV; current local production 1,569 MWh / consumption 5,229 MWh) and Budapest Freeport (industrial scenario with 1,000 kWp PV + 3,900 kWh storage) — through stakeholder outreach, interactive workshops and scenario development. Montenegro's awareness track — 13 school workshops in Nikšić reaching ~300 students, a study visit to Croatia, and an institutional seminar — combined with Serbia's REC Ambassadors network, the two-day Zlatibor event and a continuous online campaign of ~200 social-media posts reaching 50,000+ users, has built the readiness needed for the first communities to launch once secondary legislation lands. Romania's 65 event participants, 17 trainees and a network of 16 national ambassadors play a similar role.

Hard data overview

Country	Legal status of RECs	Active RECs (approx.)	Smart-meter readiness	Pilot highlight
Austria	EAG 2021, fully operational	3,000+ (Apr 2026)	Advanced, ongoing	Nationwide OeStrom community; up to several hundred €/yr savings per household
Bulgaria	Partial; sharing largely unregulated	4 (Gabrovo, Burgas, Sofia)	Limited	Gabrovo: 100 kW, 119 MWh/yr, 55 % local use, 22 % guaranteed return over 10 yrs
Czechia	Lex OZE II in force; physical sharing live	~100 registered	Critical rural gaps	ENERKOM Růže: 73 %+ of Feb production shared (237.45 / 345.95 kWh)
Germany	§42c EnWG in force from 1 June 2026	~900 energy cooperatives	Behind schedule	Regionalwerke Passauer Land gKU: 27 municipalities + district, 4.9 MW PV park
Hungary	2025 amendment + 2026 cooperatives law; framework expanding	Emerging mentoring pilots	Partial	Kunsziget (50 kW), Nemesvámos (~2,000 kW), Budapest Freeport (1,000 kWp + 3,900 kWh storage)
Montenegro	Law on RES (Aug 2024); secondary law pending	0 (preparatory phase)	~70 % coverage	13 workshops, ~300 students; study visit to Croatia
Romania	RED II/III transposed; ANRE secondary law pending	Emerging (Buteni, Between Neighbors, Flamingo 50)	Uneven	National OSS network; Energy Coalition launched 2025; 16 ambassadors
Serbia	Community energy recognised; secondary law pending	0 (prosumer model live; RECs preparatory)	Limited	REDASP residential (3.5–4.5 kWp) + industrial (30–100 kWp) pilot models; ~200 posts, 50k+ reach
Slovakia	Energy Act amendments; sharing enabled, framework maturing	~100 (up from ~12 in 2024)	Insufficient	4 NEK pilots: EC TEEK, EC SOM_EKO, EC IVANKA, Energetický Holding (53/60 High readiness)
Slovenia	Local self-supply communities operational	Local pilots (incl. Velenje, Luče)	n/a	Velenje: ~1.88 MW PV across municipal buildings, 40 metering points, turnkey municipal self-supply

Joint policy recommendations for the NRGCOM White Paper

Synthesising the national recommendations into a single set of cross-regional asks:

1. **Move from static to dynamic energy sharing.** Replace fixed share allocation with real-time, consumption-responsive sharing in primary legislation. *Priority: CZ, AT, BG, SK, RO.*
2. **Adopt or complete secondary legislation enabling REC registration, internal sharing and grid settlement.** Without this layer the legal recognition of RECs remains a promise. Clarify the operating, liability, ownership, data-exchange, billing and settlement rules for each legal form rather than relying on a single generic model. *Priority: SRB, RO, BG, MNE, HU.*
3. **Subsidise smart metering, energy management systems and interoperable settlement software specifically for RECs.** A 100 % rollout for community participants is a precondition for any of the other reforms to work; this includes access to quarter-hour production and consumption data. *Priority: DE, CZ, SK, RO, BG, SRB, HU.*
4. **Reform grid capacity allocation and connection procedures.** Replace pure first-come-first-served with a reserved minimum quota for community- and municipality-led projects, simplify and speed up connection procedures, and improve DSO/TSO coordination — including time-bound certification SLAs at the TSO interface. *Priority: CZ, AT, DE, SK, RO, HU, SRB.*
5. **Ship a standardised legal & governance toolkit and flexible local tariffs.** Model statutes, contracts, tax treatments and registration procedures so every community does not need a full-time energy lawyer. Distribution charges should reflect the voltage level actually used and the value of locally produced renewable energy. Anchor RECs explicitly in national renewable-energy targets and provide model agreements, templates and advisory support to municipalities, companies and citizens. *Priority: DE, RO, BG, MNE, SRB, HU; tariff strand: CZ, AT, BG, SK, RO, HU.*

Outlook 2026–2027

A dense series of legislative and market milestones in the next 12–18 months will shape the operating environment for RECs across the Danube Region:

- **1 January 2026** — Hungary's special rules for energy cooperatives entered into force, building on the 1 September 2025 framework for condominium building energy communities.
- **5 May – 5 July 2026** — the European Energy Community Facility's next call for proposals will directly fund community business plans (Bulgaria's national contact: the Energy Agency of Plovdiv).
- **1 June 2026** — Germany's Section 42c EnWG enters into force, opening regulated energy sharing nationwide.
- **June 2026** — the NRGCOM project closes; the final ETMEC tool is presented to the professional public.
- **1 July 2026** — the Czech Energy Data Centre (EDC) goes live, removing territorial restrictions and enabling nationwide community sharing.
- **During 2026** — Germany's EEG reform and a new Climate Protection Programme; Romania's ANRE secondary legislation expected; Serbia's secondary REC legislation in preparation; Montenegro's secondary legislation on RECs in preparation; Slovenia continues to scale municipal self-supply communities; Slovakia continues alignment with European directives and expansion of financial support programmes; Hungary moves into the post-2026 implementation phase (metering, settlement, templates, financing, testing environments).

Building on this report, the **NRGCOM White Paper** will be submitted to national policymakers in all twelve partner countries as the project closes in June 2026.

Joint press release

HEADLINE: *From Barriers to Sharing: NRGCOM Project Sets a Path for Renewable Energy Communities Across the Danube Region*

DATELINE — Pécs / Prague — May 2026

LEAD

After more than two years of pilot evaluations and national consultations, the Interreg Danube Region project **NRGCOM** today releases its Joint Dissemination Report on Renewable Energy Communities (RECs). The report, drawing on real operational data and preparatory work from pilot communities in ten partner countries — Austria, Bulgaria, the Czech Republic, Germany, Hungary, Montenegro, Romania, Serbia, Slovakia and Slovenia — documents how local energy sharing is moving from a legislative promise to working practice, identifies five recurring barriers, and puts five concrete policy recommendations on the table of national decision-makers ahead of a dense series of legislative milestones in 2026.

BODY

The picture across the region is one of fast but uneven progress. Austria has crossed 3,000 active RECs since the Renewable Expansion Act of 2021. Germany will legalise regulated energy sharing under Section 42c of the Energy Industry Act on 1 June 2026, building on roughly 900 existing energy cooperatives. The Czech Republic has registered close to 100 communities since Lex OZE II and is preparing for the 1 July 2026 launch of its Energy Data Centre, which will lift territorial restrictions on sharing. Slovakia has gone from a handful of pilot organisations in 2024 to nearly 100 energy communities being established, launched or operating in 2026. Slovenia is scaling municipal self-supply schemes through models such as Velenje. Hungary has expanded its legal framework with new provisions for condominium building energy communities (September 2025) and a dedicated regime for energy cooperatives (January 2026). Romania has transposed the relevant EU directives and stood up a national One Stop Shop network, the first Coalition of Energy Communities and a Ministry of Energy working group. Serbia has formally recognised community energy and is preparing the secondary legislation needed to operationalise it. Bulgaria still counts only four operational communities, and Montenegro — having adopted its Law on the Use of Energy from Renewable Sources in August 2024 — is laying the institutional groundwork ahead of its first community founding.

The pilots tell a consistent story. The South Bohemian community **ENERKOM Růže**, evaluated under NRGCOM, shared more than 73 % of its February production (237.45 of 345.95 kWh) thanks to active management and a diversified energy mix combining PV, biomass, biogas and heat pumps. In Lower Bavaria, the newly founded joint municipal enterprise **Regionalwerke Passauer Land gKU** — uniting 27 municipalities and the District of Passau — is building a 4.9 MW PV park as its flagship asset. In eastern Slovakia, **EC Energetický Holding – Prešov Region** (53/60 readiness points, High Readiness) covers around 73 % of local consumption from its own RES and already settles shared electricity through OKTE/EDC, with annual savings estimated up to €180,000. In Slovenia, the municipal self-supply community in **Velenje** runs around 1.88 MW of PV across public buildings on 40 metering points, packaged as a turnkey model that combines installation with long-term operation and management. In Hungary, the NRGCOM mentoring track has prepared start-ready communities in **Kunsziget** (planned 50 kW non-profit

Ltd.), **Nemesvámos** (~2,000 kW envisaged) and the industrial **Budapest Freeport** pilot (1,000 kWp PV + 3,900 kWh battery storage). In Bulgaria, the **Gabrovo** community of 67 citizens, 4 SMEs and one NGO operates a 100 kW installation producing around 119 MWh per year, with 55 % consumed locally and members guaranteed a 22 % return over a 10-year horizon. The **OeStrom** community in Austria delivers savings of several hundred euros per year to participating households. In Serbia, **REDASP** has prepared residential (3.5–4.5 kWp per household) and industrial (30–100 kWp per enterprise) pilot models complete with governance structures, statutes and development roadmaps — ready for activation as soon as secondary legislation is in place — and reached over 50,000 users through a national communication campaign. In Montenegro and Romania, awareness-building — including 13 school workshops in Nikšić and a network of 16 national ambassadors in Romania — is preparing the ground for the first operational communities.

"The barriers to RECs in the Danube Region today are no longer technical or social — they are regulatory. NRGCOM puts five concrete steps on the table to remove them by 2027."

The report nevertheless confirms that enthusiasm alone is not enough. Five recurring barriers limit the full potential of RECs across the Danube Region: inflexible static sharing rules; missing or incomplete secondary legislation; an incomplete smart-meter and settlement-software rollout; grid capacity blocking under first-come-first-served allocation; and disadvantageous tariff structures combined with regulatory complexity that is well out of reach of citizen-led initiatives.

In response, NRGCOM proposes five concrete policy steps for national policymakers and EU institutions: move from static to dynamic energy sharing; adopt or complete the secondary legislation needed to operationalise REC registration, sharing and grid settlement; subsidise smart metering, energy management systems and interoperable settlement software specifically for RECs; reform grid capacity allocation and connection procedures with a reserved minimum quota for community projects; and ship a standardised legal and governance toolkit paired with flexible, locally-aware distribution tariffs — anchoring RECs in national renewable-energy targets.

MAIN QUOTE

"NRGCOM shows that energy communities across the Danube Region no longer need more pilots to prove the concept — they are working from Passau to Velenje to Prešov. What they need is market infrastructure: smart meters, dynamic sharing and fair grid access. This is our joint message to policymakers for 2026."

— [Name, Function], Regional Agency for Innovation in the South Transdanubian Region (STRIA), NRGCOM Lead Partner

BOILER-PLATE

NRGCOM (Renewable Energy Communities in the Danube Region) is a transnational project co-funded by the European Union under the Interreg Danube Region Programme. It is implemented in 12 countries by 13 project partners and 14 associated strategic partners — state administrations, local self-governments, energy and development agencies, and civil-society organisations. The lead partner is the Regional Agency for Innovation in the South Transdanubian Region (STRIA, Hungary). The project runs from January 2024 to June 2026.

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