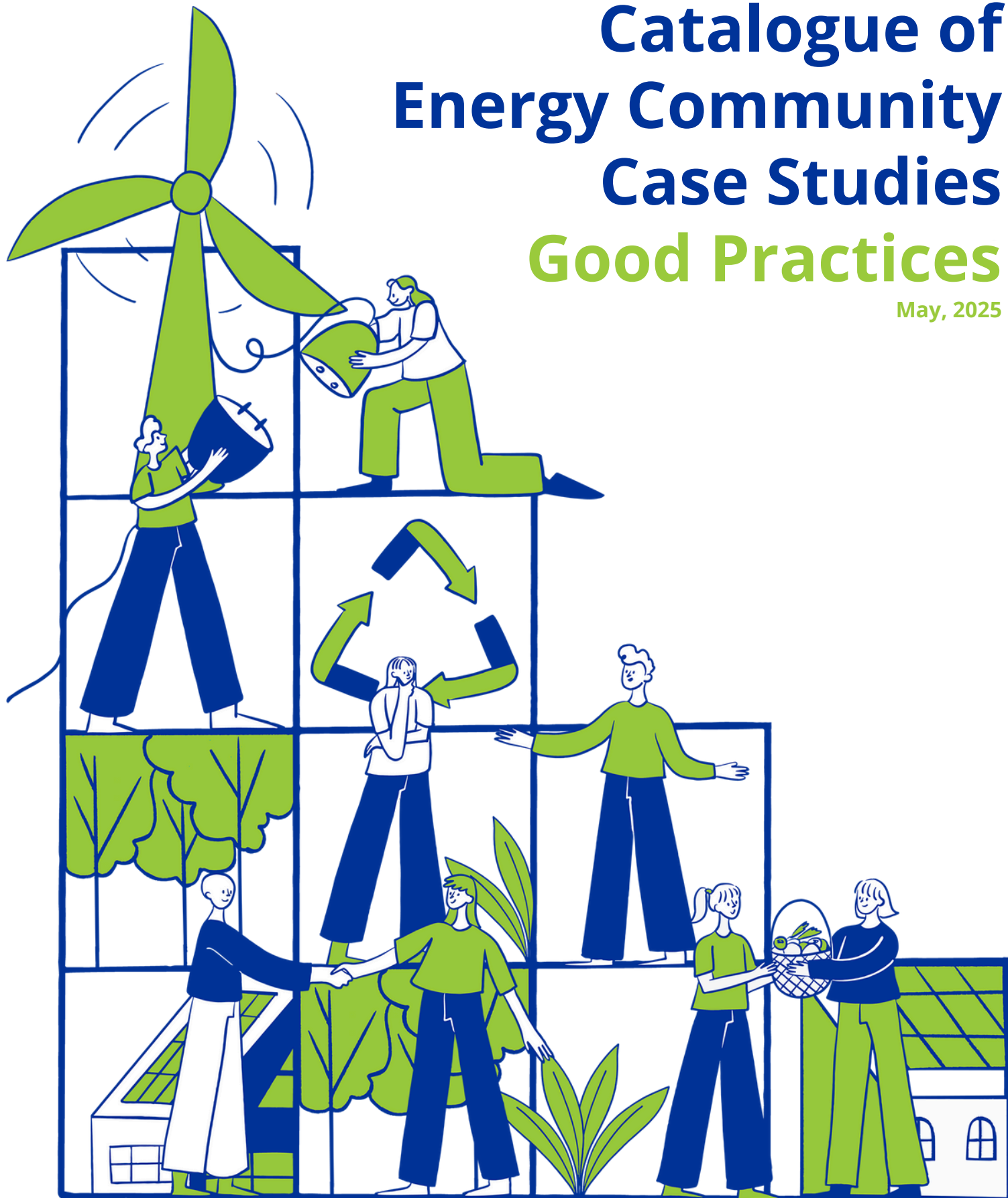


# Catalogue of Energy Community Case Studies Good Practices

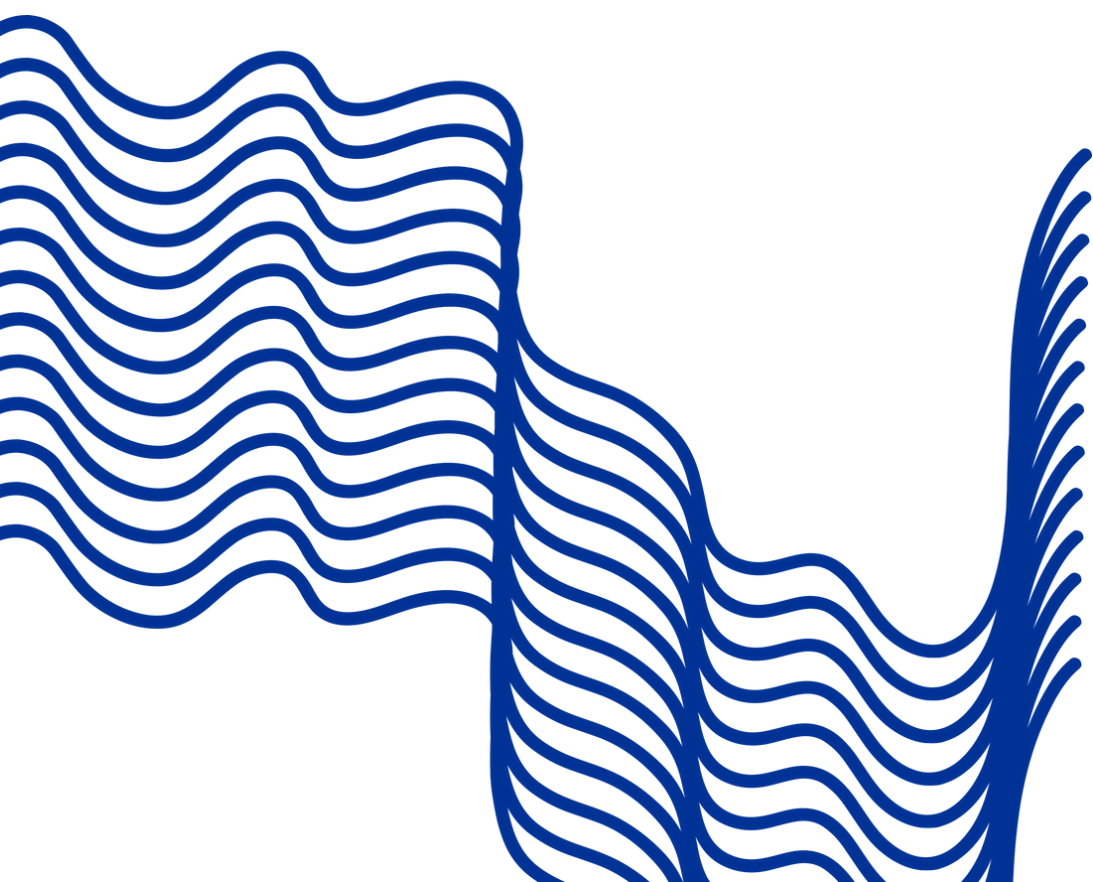
May, 2025





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## **Building the future together: Energy Communities across the Danube Region**

The transition to a sustainable, decentralized energy future requires real-life examples that demonstrate the power of collaboration, innovation and community engagement.

This catalogue of Energy Community Good Practices brings together a diverse collection of success stories from across the Danube Region, each highlighting the inspiring efforts of local actors to develop Energy Communities that are inclusive, resilient and forward-thinking.

These case studies reveal the tangible impact of Energy Communities from reducing carbon emissions and increasing energy independence, to strengthening social bonds and empowering citizens.

Each example provides a clear and accessible model of how these communities were planned, implemented and managed, offering insight into technologies used, financial models applied and challenges that were overcome.

# Austria

## REC Neudörfl

### General coordinates

<b>Year of foundation:</b>	2023
<b>Area:</b>	Burgenland, Austria
<b>Specifics:</b>	Renewable Energy Community
<b>Technology:</b>	PV
<b>Av. annual electricity consumption:</b>	356.8 MWh from grid, 76 MWh from the Energy Community
<b>Initiative:</b>	RES <sup>2</sup> Community Project (Lead: Forschung Burgenland GmbH)
<b>Contact details:</b>	<a href="mailto:markus.puchegger@hochschule-burgenland.at">markus.puchegger@hochschule-burgenland.at</a>
<b>Website:</b>	<a href="https://www.forschung-hochschule-burgenland.at">Forschung Hochschule-Burgenland</a>



### 1. Overview

Located in Burgenland, Austria, REC Neudörfl is a Renewable Energy Community established in 2023 as part of the RES2 Community Project led by Forschung Burgenland GmbH. It represents a forward-thinking approach to energy transition and climate protection.

With 100 active members - nearly half of whom are prosumers - the community integrates diverse energy sources, including electricity and heat, while prioritizing transparency and real-time data sharing.

**The REC's key objectives** are to ensure a reliable energy supply, prevent blackouts and set new communication standards through synergistic use of energy technologies.

### 2. Success Factors

The project thrives due to **strong community engagement** and **local government support**.

Crucial steps include:

- Hosting workshops to address social, economic, legal and technical aspects.
- Collecting feedback through surveys to refine project planning.
- Employing transparent communication channels like meetings, local newspapers and personal consultations to strengthen trust.

Solar panels installed on homes, businesses and public buildings (in partnership with the local government) ensure a sustainable energy supply. The funding model, with facilities owned by members and small administrative fees, ensures long-term viability.



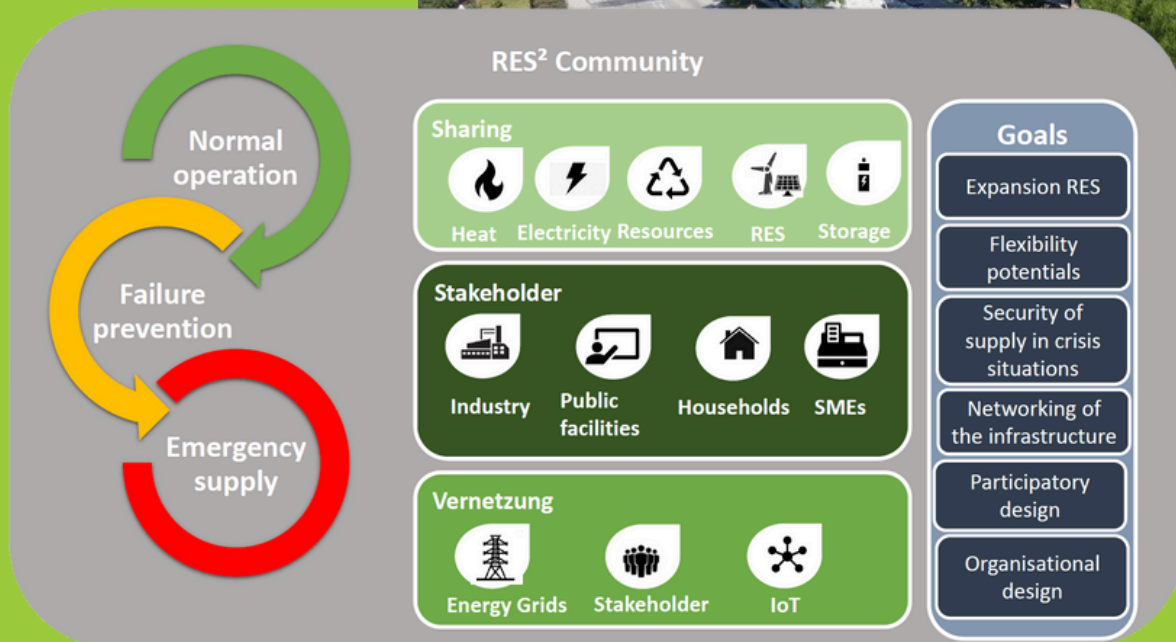
### 3.Outcomes and Impacts

- **Energy Contribution:** Shared clean energy reduced carbon emissions by ~15.9 tons annually.
- **Electricity Sharing:** Community energy exchange grew from 6,000 kWh in 2023 to 76,000 kWh in 2024.
- **Social Impact:** Strengthened community bonds fostered friendships and collaboration.

### 4.Lessons for Others

Diversifying energy technologies - such as wind and hydropower - can improve community self-sufficiency.

Tailored communication strategies overcome demographic barriers, while unique service offerings attract and retain members.



### 5.Conclusion

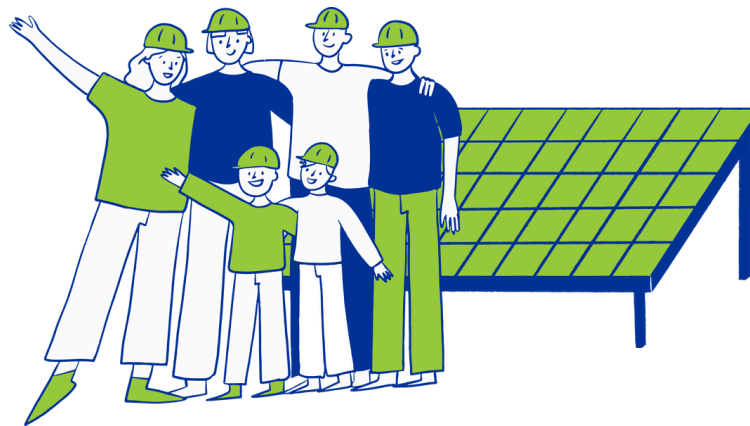
REC Neudörfel exemplifies how transparency and community-driven initiatives can accelerate renewable energy adoption. Its successes highlight the tangible benefits of clean energy while inspiring broader collaborative efforts.

# 02. Bulgaria

## REC Gabrovo

### General coordinates

<b>Year of foundation:</b>	end of 2023 – early 2024
<b>Area:</b>	Gabrovo, Bulgaria
<b>Specifics:</b>	Registered as a commercial company
<b>Technology:</b>	PV
<b>Av. annual electricity consumption:</b>	100 kWh
<b>Initiative:</b>	Gabrovo municipal administration
<b>Contact details:</b>	Bulgaria, Gabrovo, 3 Vazrazhdane sq.
<b>Website:</b>	<a href="https://gabrovo.bg/bg/page/1625#">https://gabrovo.bg/bg/page/1625#</a>



### 1. Overview

REC Gabrovo represents one of Bulgaria's pioneering Renewable Energy Communities, formed in alignment with EU regulations and the country's National Renewable Energy Act. Established through the proactive efforts of the Gabrovo municipal administration, the community integrates 73 members, including 67 individuals, 5 small and medium-sized enterprises (SMEs) and the Municipality of Gabrovo itself. Utilizing a 100kW photovoltaic plant installed on a municipal building, REC Gabrovo emphasizes collaboration and sustainable practices by distributing surplus energy among members. Its innovative approach to local energy production and management highlights its commitment to clean energy and resource pooling.

## 2. Success Factors

Gabrovo's municipal administration played a central role in driving the project, from navigating permits to overseeing solar plant construction and maintenance. Key elements contributing to the community's success:

- **Inclusive Decision-Making:** Equal voting rights for members, regardless of financial contribution, fostering a sense of belonging and collective action.
- **Transparent Governance:** Regular meetings, both online and in-person, facilitating open discussions and decisions with over three-quarters agreement required for major resolutions.
- **Financial Accessibility:** The project was funded through €80,000 in private investments alongside municipal support, capping individual contributions at €2,500 to democratize participation.

The community was operational within just six months, with plans to welcome new members and ensure ongoing growth under well-defined guidelines.

## 3. Outcomes and Impacts

The project empowers members with access to clean, locally produced energy distributed fairly among participants. Electricity costs are shared under transparent agreements, promoting collaboration and fairness. Monthly municipal reports enhance transparency, detailing energy production, usage and surplus sales. The initiative fosters environmental responsibility by reducing carbon emissions and contributes to social cohesion by strengthening community bonds.

## 4. Lessons for Others

REC Gabrovo faced challenges with national energy authority fees for shared energy, raising issues of fairness as similar fees are waived in many EU countries. Advocating for fee exemptions has become a priority. The project also highlighted the importance of proactive communication, with monthly reports addressing financial risks to maintain member trust. These experiences underline the need for equitable policies and continuous transparency in renewable energy initiatives.

## 5. Conclusion

REC Gabrovo exemplifies the potential of municipal leadership in renewable energy projects. Its commitment to transparency, equitable governance and collaborative action serves as a model for fostering sustainable energy communities. Strong partnerships with stakeholders, paired with a focus on fairness, are crucial for replicating such successes in other regions.



# 03. Czech Republic

## Enerkom Růže

### General coordinates



<b>Year of foundation:</b>	2022
<b>Area:</b>	South Bohemian Region
<b>Specifics:</b>	ENERKOM Růže is an existing Energy Community, established according to the Renewable Energy Directive 2018/2001
<b>Technology:</b>	PV, biogas, wood chips, heat pumps
<b>Av. annual electricity consumption:</b>	809.585 MWh
<b>Initiative:</b>	Local production and sharing of renewable energy
<b>Contact details:</b>	<a href="mailto:info@enerkom-ruze.cz">info@enerkom-ruze.cz</a>
<b>Website:</b>	<a href="http://www.enerkom-ruze.cz">www.enerkom-ruze.cz</a>

### 1. Overview

Established in 2022 within the Local Action Group Sdružení Růže, ENERKOM Růže brings together households, businesses and local governments in the South Bohemian Region. This Energy Community empowers members to become more self-sufficient by generating and sharing renewable energy, addressing rising energy costs and environmental concerns. With diverse renewable energy technologies—including solar panels, biogas, wood chips and heat pumps—the community focuses on reducing reliance on large power companies and fostering local collaboration.

### 2. Success Factors

#### Key contributors to the project's success include:

- **Community Engagement:** Inclusive decision-making and transparency ensured active member participation.
- **Technical Excellence:** Modern technologies like biogas production, solar panels, wood chip heating and energy storage systems enhance sustainability.
- **Strategic Funding:** A blend of government grants, investments and contributions provides financial stability.
- **Well-Defined Timeline:** From formation in 2022 to enabling energy sharing by 2025, the structured approach promotes long-term impact.

### 3. Outcomes and Impacts

- **Economic Benefits:** Job creation in the renewable energy sector supports the local economy.
- **Energy Savings:** Renewable energy lowers energy costs for participants, stabilizing prices and reducing dependence on external suppliers.
- **Environmental Impact:** CO<sub>2</sub> emissions are significantly reduced through diverse clean energy sources, fostering sustainability.
- **Social Strengthening:** Collaboration and shared resources boost community cohesion and resilience.

### 4. Lessons for Others

- **Build Expertise:** Partner with technology providers and conduct detailed feasibility studies.
- **Diversify Funding:** Combine grants, investments and crowdfunding for financial sustainability.
- **Engage Stakeholders:** Involve residents and local authorities early to ensure lasting support and alignment with community aspirations.
- **Encourage Flexibility:** Adopt a modular approach to integrate new technologies and scale effectively.

### 5. Conclusion

ENERKOM Růžė exemplifies how rural communities can address energy challenges by prioritizing renewable resources, collaboration and innovation. Its journey offers a replicable model for empowering communities to achieve energy independence and environmental sustainability.





# Sv. Ján nad Malší

## energy management

### General coordinates

<b>Year of foundation:</b>	2022
<b>Area:</b>	South Bohemian Region
<b>Specifics:</b>	Focused on energy efficiency and renewable energy adoption across municipal and residential properties.
<b>Technology:</b>	Biogas plant, PV systems, smart energy management and water-saving technologies.
<b>Av. annual electricity consumption:</b>	n/a
<b>Initiative:</b>	Improvement of energy efficiency and RES projects
<b>Contact details:</b>	<a href="mailto:podatelna@svjan.cz">podatelna@svjan.cz</a>
<b>Website:</b>	<a href="http://www.svjan.cz">www.svjan.cz</a>



### 1.Overview

Located in the South Bohemian Region, Sv. Ján nad Malší stands out for its innovative approach to energy efficiency and renewable adoption. The Energy Management Group focuses on promoting sustainability and self-sufficiency by employing advanced monitoring tools like Emonit and Sensorfor to track energy and water consumption. This data-driven strategy enables optimization of local resources, supporting municipal and residential properties. The initiative encompasses a diverse range of renewable energy technologies, such as biogas plants, photovoltaic systems and water-saving solutions, which collectively reduce carbon emissions and improve energy security. By prioritizing community education and engagement, this project highlights the transformative potential of collective, informed action in addressing energy challenges.

### 2.Success Factors

- **Community Involvement:** Residents, local businesses and municipal representatives actively participated, fostering trust and shared commitment.
- **Advanced Technologies:** Incorporating photovoltaic systems, biogas plants and water-saving technologies enhanced resource efficiency.
- **Educational Outreach:** Workshops and campaigns heightened awareness of energy-saving practices, building support.
- **Data-Driven Decisions:** Monitoring tools optimized resource management and supported long-term sustainability goals.

### 3.Outcomes and Impacts

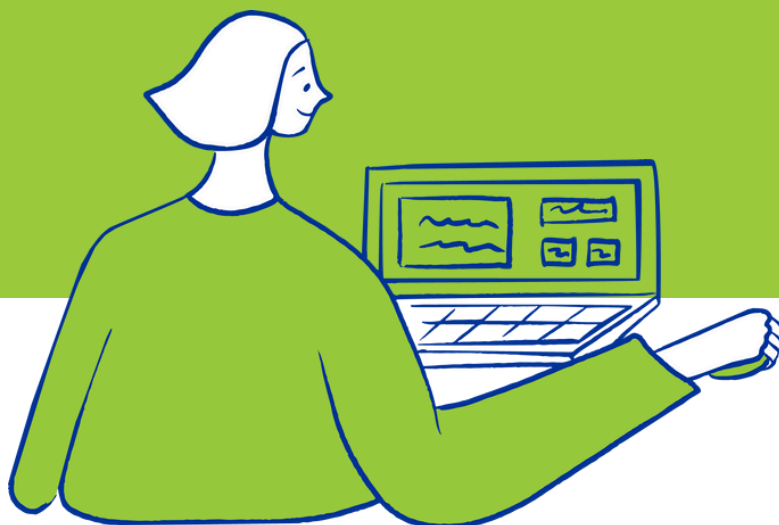
- **Economic Savings:** Energy costs were reduced for both households and municipal facilities.
- **Environmental Impact:** The use of renewable energy sources significantly lowered CO<sub>2</sub> emissions and reliance on fossil fuels.
- **Social Benefits:** Enhanced collaboration among residents fostered a sense of shared responsibility for energy sustainability.

### 4.Lessons for Others

- **Data Monitoring Matters:** Invest in reliable tools to optimize energy and water use.
- **Incremental Growth:** Start with small, scalable projects to build momentum and minimize risks.
- **Community Engagement:** Involve stakeholders early to ensure buy-in and long-term participation.

### 5.Conclusion

The Energy Management Group of Sv. Ján nad Malší demonstrates how small communities can achieve meaningful progress in energy efficiency and sustainability. By prioritizing education, leveraging advanced technologies and adopting a gradual implementation approach, it serves as a replicable model for other municipalities. Clear communication and community inclusion are foundational to the success of such initiatives, paving the way for broader energy transformation.



# Germany

## Das Energiedorf im Allgäu (Wildpoldsried)

### General coordinates

<b>Year of foundation:</b>	1977
<b>Area:</b>	Wildpoldsried is in Bavaria, Germany, covering an area of 21.35 sq. km
<b>Specifics:</b>	As of recent reports, the village produces approximately eight times the energy it consumes and over 50% of the heat required, showcasing its commitment to sustainability.
<b>Technology:</b>	Wildpoldsried has implemented a diverse mix of renewable energy technologies, including wind turbines, solar panels, biogas plants and small hydropower systems.
<b>Av. annual electricity consumption:</b>	While specific per-household consumption figures are not detailed, the village's energy production significantly exceeds its consumption, allowing it to sell surplus energy back to the grid.
<b>Initiative:</b>	The community's efforts are guided by sustainability programs aimed at achieving energy self-sufficiency and integrating renewable energy sources.
<b>Contact details:</b>	<a href="mailto:susi.zengerle@wildpoldsried.de">susi.zengerle@wildpoldsried.de</a>
<b>Website:</b>	<a href="https://www.wildpoldsried.de/">https://www.wildpoldsried.de/</a>

### 1. Overview

Wildpoldsried, a small village in Bavaria, has been a pioneer in renewable energy since 1997. With a population of around 2,600 and an area of 21.35 sq. km, this forward-thinking community produces approximately eight times the energy it consumes while meeting over 50% of its heating needs. The initiative began with the village council organizing brainstorming sessions and surveys to gather resident input, setting the foundation for a long-term energy sustainability plan. The key goals included achieving energy independence, reducing carbon emissions and bolstering the local economy through investments in diverse renewable energy sources such as wind turbines, solar panels, biogas plants and small hydropower systems. This project exemplifies a community-driven approach to sustainability, highlighting the benefits of collective effort and innovative thinking.



## 2.Success Factors

Key to Wildpoldsried's success has been the **community's involvement, long-term planning** and **innovative use of technology**:

- **Community Engagement:**

Residents participated in decision-making, public meetings and investment opportunities, fostering a sense of ownership and trust.

- **Supportive Leadership:**

Local leaders, including town officials, provided guidance, ensured compliance with regulations and facilitated funding opportunities.

- **Technological Integration:**

A mix of renewable energy technologies — wind, solar, biomass heating, biogas, hydroelectric systems and smart grids — ensures reliability and efficiency.

- **Gradual Development:**

From initial projects (1997-2000) to expanded infrastructure (2010-2020), a phased approach allowed for steady growth and community adaptation.

## 3.Outcomes and Impacts

- **Social Benefits:**

Increased community participation, enhanced local services through reinvestment of energy revenues and educational programs on renewable energy.

- **Economic Gains:**

Energy projects contributed significantly to local tax revenue, created jobs and reduced household energy costs.

- **Energy Performance:**

The village generates 321% of its energy needs, selling the surplus back to the grid and achieving energy independence.

- **Environmental Impact:**

A 65% reduction in carbon emissions showcases the community's commitment to global climate goals.

#### 4. Lessons for Others

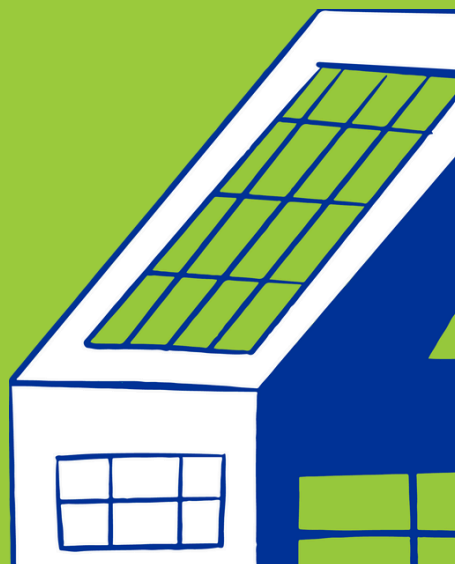
Wildpoldsried's journey highlights the importance of:

- **Early and Inclusive Community Engagement:** Involving residents from the start builds trust and fosters collaboration.
- **Diversified Funding Models:** Combining public subsidies, private investments and community contributions ensures financial stability.
- **Gradual Implementation:** Starting with small projects allows for refinement and builds momentum.
- **Strong Leadership:** Local leaders play a critical role in navigating technical, regulatory and social challenges.



#### 5. Conclusion

Wildpoldsried serves as an inspiring model for sustainable Energy Communities worldwide. Its success stems from inclusive planning, innovative use of technology and a phased development approach. By aligning local needs with global sustainability goals, Wildpoldsried demonstrates that even small communities can achieve remarkable progress in energy independence and environmental stewardship.





# Energiezukunft Fuchstal

## General coordinates

<b>Year of foundation:</b>	2018
<b>Area:</b>	Rural Municipality of Fuchstal, Bavaria
<b>Specifics:</b>	Aim to achieve energy self-sufficiency by integrating multiple renewable energy technologies, with a population of approximately 4,000 residents.
<b>Technology:</b>	PV systems, hydropower plants, biogas facilities, citizen-owned wind parks, central heat storage systems and battery units.
<b>Av. annual electricity consumption:</b>	n/a
<b>Initiative:</b>	Energiezukunft Fuchstal
<b>Contact details:</b>	<a href="https://fuchstal.de/kommunale-projekte/energiezukunft-fuchstal/">https://fuchstal.de/kommunale-projekte/energiezukunft-fuchstal/</a>

### 1. Overview

Situated in Bavaria, Germany, the rural municipality of Fuchstal has undertaken an ambitious project called Energiezukunft Fuchstal to achieve energy independence by 2024. With a population of about 4,000 residents, this initiative combines various renewable energy technologies, including photovoltaics, hydropower, biogas and wind energy, along with innovative energy storage solutions.

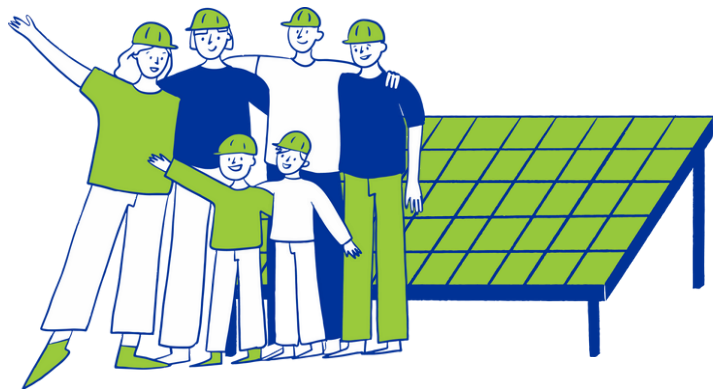
The project emphasizes reducing carbon emissions, promoting local sustainability and enhancing the local economy. By integrating modern technologies and fostering community involvement, Fuchstal serves as a model for how smaller, rural areas can contribute to the energy transition.

### 2. Success Factors

- **Inclusive Governance:**  
Transparent governance, equal voting rights and active resident participation in decision-making.
- **Strategic Planning:**  
Strong partnerships with technical and legal experts to simplify compliance and regulatory processes.
- **Diversified Energy Sources:**  
Integration of solar panels, biogas plants, hydropower and wind energy to enhance reliability and resilience.
- **Financial Sustainability:**  
Public grants, private investments, cooperative contributions & partnerships with green energy funds.

### 3.Outcomes and Impacts

- **Empowered Community:** Residents actively participated, created job opportunities and built stronger local networks.
- **Economic Benefits:** Lowered energy costs, reduced dependence on fossil fuels and increased local investments.
- **Environmental Impact:** Significant reduction in carbon emissions and enhanced sustainability efforts.
- **Energy Independence:** Fuchstal achieved considerable energy self-sufficiency through renewable technologies and effective resource management.



### 4.Lessons for Others

- **Engage Early:** Active involvement from residents and stakeholders ensures broader support and smoother execution.
- **Diversify Energy Sources:** A combination of renewables enhances system stability and reliability.
- **Simplify Compliance:** Proactive engagement with authorities and experts minimizes regulatory delays.
- **Financial Planning:** A mix of grants, loans and investments ensures financial stability and scalability.

### 5.Conclusion

The Energiezukunft Fuchstal initiative demonstrates how rural communities can achieve energy self-sufficiency by prioritizing diverse renewable technologies, inclusive governance and strategic partnerships. Its success story is a replicable model for other communities seeking to contribute to global sustainability goals while reaping local economic and environmental benefits.



# 05. Hungary

## Bábolna

### General coordinates

<b>Year of foundation:</b>	2023
<b>Area:</b>	Bábolna, Hungary
<b>Specifics:</b>	REC
<b>Technology:</b>	Solar panel, methane gas-powered small power plant
<b>Av. annual electricity consumption:</b>	n/a
<b>Initiative:</b>	Bábolna Energy Community Nonprofit Ltd.
<b>Contact details:</b>	Szabolcs Gerendás, <a href="mailto:gerendas@gerinfo.hu">gerendas@gerinfo.hu</a>
<b>Website:</b>	<a href="http://babolna.hu/varosunk/vallalkozasok/babolna-energiakozossege-nonprofit-kft/">babolna.hu/varosunk/vallalkozasok/babolna-energiakozossege-nonprofit-kft/</a>

### 1. Overview

In 2023, the Bábolna Energy Community was established to improve energy sustainability and efficiency for municipal institutions and the broader community. This initiative, spearheaded by the mayor, seeks to reduce operational costs while promoting energy autonomy. By leveraging renewable energy sources such as solar power and a methane gas-powered small power plant, the project not only cuts financial expenditure but also reduces the municipality's carbon footprint. These efforts align with broader environmental goals, paving the way for long-term sustainability and energy security.

## 2.Success Factors

The success of the Bábolna Energy Community stems from several key factors:

- **Leadership and Vision:** The mayor's proactive leadership played a critical role, from securing funding through feasibility studies to overcome regulatory challenges.
- **Collaborative Stakeholder Involvement:** While residents aren't yet individual members, local businesses and government institutions have been instrumental in driving progress.
- **Technical and Financial Solutions:** Renewable technologies like solar panels and a methane gas-powered power plant provide reliable energy solutions. The financial model combines grants, municipal funding and local business investments, ensuring stability.

## 3.Outcomes and Impacts

The project has progressed steadily since its application in 2021:

- By late 2023, Bábolna became the first Energy Community in its region to receive the MEKH license.
- Infrastructure for solar energy, storage and V2G chargers is underway, with full operation expected by late 2024.
- Anticipated outcomes include cost savings for municipal institutions, enhanced energy security and reduced environmental impact through cleaner energy sources.

## 4.Lessons for Others

The Bábolna Energy Community's journey underscores several important lessons:

- **Regulatory Navigation:** An underdeveloped regulatory framework presented challenges; building strong service provider relationships and external expert teams proved invaluable.
- **Leadership's Role:** A dedicated leader who ensures vision alignment and project continuity is critical for success.
- **Efficiency Investments:** Prioritizing energy efficiency reduces demand and aligns production with actual needs, ensuring a sustainable trajectory.

## 5.Conclusion

The Bábolna Energy Community illustrates the importance of thorough planning, strong leadership and robust stakeholder collaboration in achieving energy sustainability. Its approach offers replicable strategies for other communities seeking to enhance energy efficiency and autonomy while promoting environmental responsibility.



# 06. Romania

## Buteni Commune, Arad County

### General coordinates



<b>Year of foundation:</b>	2020 (first local energy projects started in 2020, followed in 2024 with the establishment of the community, according to the legislation)
<b>Area:</b>	Rural area, commune with approx. 3,100 inhabitants, 900 households, in Arad County
<b>Specifics:</b>	Relatively young population, small developed businesses, but not connected to a large urban centre, with approx. 25% of households in fuel poverty, receiving heating subsidies; relatively large dwellings (average floor area 85 sqm)
<b>Technology:</b>	PV panels
<b>Av. annual electricity consumption:</b>	3,600 kWh/ household (total 3,240 MWh) + 233,324 kWh/ public buildings (town hall, kindergarten, schools, sports and cultural halls, sewage treatment plant, water pumping stations etc.) + 227,467 kWh/ year for street lighting
<b>Initiative:</b>	Mixed, Buteni municipality and the local community
<b>Contact details:</b>	+40.257-320129   +40.257-320046

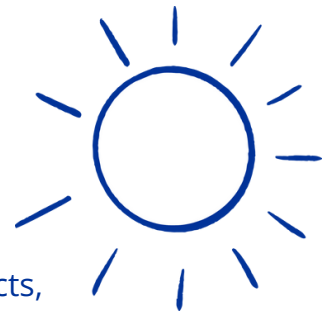
### 1.Overview

Located in a rural area of Arad County, Buteni Commune consists of four villages with approximately 3,100 residents. While the local economy thrives on small family businesses like furniture workshops, nearly 25% of households face energy poverty, receiving heating subsidies. Recognizing this challenge, the municipality initiated innovative energy projects to address affordability and energy autonomy concerns. Since 2020, Buteni has progressively implemented renewable energy solutions, including photovoltaic systems for private homes and municipal buildings. This initiative aims to foster surplus energy sharing, achieving annual savings of €100,000 while reducing CO<sub>2</sub> emissions by 800 tons. The community is also exploring geothermal resources to develop district heating in the future.



## 2.Success Factors

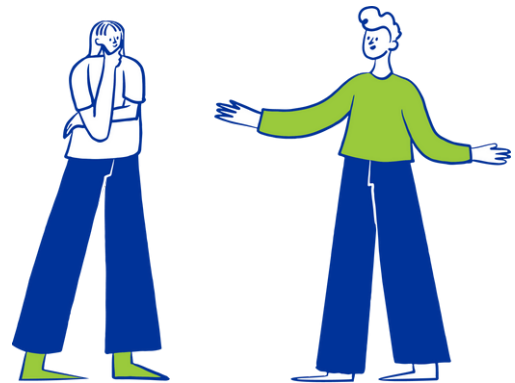
Buteni Commune's success is driven by **strategic leadership** and **community engagement**:



- **Proactive Leadership:** The Mayor and the administrative team secured European funding and participated in cross-border projects, ensuring alignment with EU standards.
- **Financial Resourcefulness:** Through national funding programs like "Green House Photovoltaic," 100 of the 200 planned photovoltaic installations have been completed, leveraging €720,000 in funding and €280,000 in local contributions.
- **Transparent Communication:** The City Hall guided residents throughout the application processes, effectively raising awareness and fostering participation.
- **Innovative Projects:** Initiatives like modernizing public lighting systems with Norwegian grants set an example of sustainability and cost-efficiency.

## 3.Outcomes and Impacts

- **Energy Transition:** By 2024, ~20% of households and municipal buildings became prosumers, supplying clean energy and achieving 36% local renewable source coverage.
- **Economic Benefits:** Households with solar installations collectively save €100,000 annually.
- **Environmental Impact:** Local energy systems reduced reliance on external suppliers and contribute surplus energy to national grids, promoting sustainability.
- **Community Strengthening:** Energy independence alleviates financial burdens, particularly for low-income families, while boosting local cohesion.



## 4.Lessons for Others

- **Technical Expertise Matters:** Local authorities should provide tailored support during renewable energy system installations.
- **Advocacy Efforts:** Strengthen representation for Energy Communities at both local and national levels to address regulatory challenges.
- **Guidance for Community Engagement:** Continuous education and involvement ensure widespread participation and informed decision-making.
- **Collaboration is Key:** Establishing partnerships with universities, cross-border projects and community-driven initiatives accelerates progress.

## 5. Conclusion

Buteni's journey demonstrates that local communities can overcome energy poverty through visionary leadership and collaborative efforts. With its focus on renewable energy, Buteni serves as a replicable model for other rural communities. By fostering technical expertise, advocacy and community involvement, municipalities can transform individual energy-saving efforts into cohesive, impactful initiatives.

## FLAMINGO 50, Balotești Commune, Ilfov County

### General coordinates

<b>Year of foundation:</b>	2022
<b>Area:</b>	Periurban - Residential complex, newly built houses consisting of 30 households, 120 tenants
<b>Specifics:</b>	Inhabitants av. age of 40 years, av. income €1.000/ inhabitant, 30 houses with an av. no of 3-4 pers./ household and av. area per household of 120 sqm
<b>Technology:</b>	PV panels
<b>Av. annual electricity consumption:</b>	17,000 kWh/ household; the community uses electricity for all domestic consumption (lighting, cooking, heating)
<b>Initiative:</b>	Private

### 1. Overview

The Flamingo 50 residential complex is situated in a serene, peri-urban location near Balotești Commune, Ilfov County. Comprising 30 newly built homes, the community was established with the vision of creating a unified energy network to foster resilience, reduce costs and increase energy independence. This initiative is spearheaded by Flamingo Energy, an owners' association committed to renewable energy adoption and local collaboration. Residents, most of whom rely on electricity for domestic needs, including heating, have collectively installed photovoltaic panels on rooftops and embraced shared energy production and storage systems. The community prioritizes self-sufficiency and aims to lower electricity expenses while promoting environmental sustainability.

## 2. Success Factors

- **Collaborative Spirit:** Flamingo 50 thrives on community engagement. Approximately 25% of residents secured funding via the national “Green House” program, while 75% financed the photovoltaic installations independently.
- **Technological Innovation:** Many homes are equipped with solar panels and electric vehicles powered by locally produced renewable energy.
- **Active Participation:** With 27 members already connected and five more joining, residents work cohesively to optimize shared energy resources.
- **Financial Sustainability:** Investments in solar systems are expected to pay off within 1.2 years, underscoring the economic feasibility of such initiatives.

Currently in the discussion phase, the community addresses challenges posed by geographical isolation and a single energy distributor, reinforcing the importance of collaboration and suitable technologies to overcome obstacles.

## 3. Outcomes and Impacts

- **Environmental Benefits:** The installation of 0.4 MW of photovoltaic panels reduces dependency on the external grid and lowers carbon emissions.
- **Economic Gains:** Projected annual electricity savings amount to €126,000 compared to market-based electricity costs.
- **Social Resilience:** The initiative strengthens bonds among members and exemplifies how peri-urban communities can achieve energy independence and sustainability.



## 4. Lessons for Others

- **Social Motivation Matters:** The Flamingo 50 community demonstrates that resilience and shared benefits, rather than ecological goals alone, can drive successful Energy Communities.
- **Non-Profit Framework:** Keeping profit motives aside ensures long-term focus on community well-being and sustainability.
- **Advocacy for Decentralization:** Navigating centralized energy policies requires strong local collaboration and persistent advocacy for community-driven initiatives.
- **Accessible Financing Models:** Tailored financial strategies like the “Green House” program encourage widespread participation and equitable benefits.

## 5.Conclusion

The Flamingo 50 Energy Community highlights the importance of balancing social and environmental goals, maintaining a non-profit model and investing in renewable technologies tailored to local needs. Collaboration at the local level and engagement with national policies are key to navigating centralized systems, while accessible financing ensures economic sustainability and long-term environmental impact.



## Other sources of inspiration: Între Vecini/ Between Neighbours: A model for energy and community building

### 1.Overview

Între Vecini (Between Neighbours) is a Romanian non-governmental organization dedicated to improving the quality of life within communities by empowering residents to collaborate on impactful local projects. Since its launch in 2021, Între Vecini has focused on uniting neighbours around shared goals, creating opportunities for social cohesion and enhancing urban living. Its flagship initiative involved transforming an ordinary urban apartment block into an energy-positive community, demonstrating how collective action can drive sustainable energy solutions and strengthen community bonds. The NGO aims to guide and financially support neighbourhood groups in implementing projects that promote unity, proactive engagement and sustainability. From clean energy generation to enhancing communal spaces, the organization inspires neighbourhoods to take collective responsibility for their shared environment.

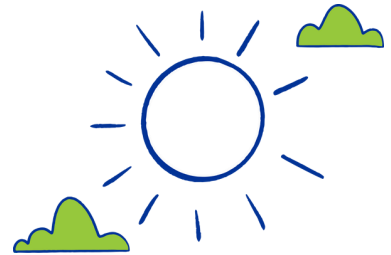
## 2.Success Factors

Între Vecini's urban energy project owes its success to several factors:

- **Innovative Vision:** The project turned an apartment block into an energy-positive community by installing solar panels and redesigning its shared spaces.
- **Financial Support:** A €5,500 grant funded the installation of 40m<sup>2</sup> of solar panels, generating 729 kWh of electricity per month.
- **Community Engagement:** The NGO actively involved residents through workshops and consultations, addressing initial scepticism and fostering cooperation.
- **Holistic Approach:** Alongside renewable energy, the project created a landscaped communal garden, promoting both environmental and social benefits.

## 3.Outcomes and Impacts

- **Energy Savings:**  
Solar panels reduced residents' energy bills, providing a sustainable source of electricity.
- **Social Cohesion:** The project strengthened social ties among neighbours, transforming sceptical residents into active participants.
- **Environmental Impact:** The shift to solar energy lowered the block's carbon footprint and increased energy efficiency.
- **Community Development:** The redesigned garden became a hub for social interaction, further uniting residents.



## 4.Lessons for Others

Între Vecini's experience offers valuable insights for similar initiatives:

- **Start Small:** Pilot projects demonstrate feasibility and help build trust.
- **Engage Residents Early:** Address concerns transparently through consultations.
- **Integrate Multiple Benefits:** Combining energy efficiency projects with social and aesthetic improvements maximizes impact.
- **Foster Collaboration:** Encourage collective participation to strengthen community bonds and ensure project sustainability.

## 5.Conclusion

Între Vecini illustrates how community-driven initiatives can integrate clean energy solutions with social development. By combining renewable energy projects with efforts to foster collaboration and shared spaces, the NGO created a replicable model for urban renewal. Its approach emphasizes the power of unity in achieving meaningful change.



# 07. Slovakia

## TEEK Trenčín Energy Environmental Cluster

### General coordinates

Year of foundation:	2024
Area:	Trenčín Region, Slovakia
Specifics:	Energy Community
Technology:	Conventional energy and renewable energy sources
Av. annual electricity consumption:	n/a
Initiative:	NEK, Bratislava & TEEK Trenčín
Contact details:	Opatovce nad Nitrou 367, 97202 Opatovce nad Nitrou
Website:	<a href="http://www.teek.one">www.teek.one</a>

### 1.Overview

Established in 2024 in the Trenčín Region of Slovakia, the TEEK Trenčín Energy Community represents a collaborative effort between the municipality of Opatovce nad Nitrou, local businesses and other stakeholders to create a stable, localized energy system. This Energy Community addresses the limitations of central energy supplies, reducing reliance on conventional energy sources by integrating renewable energy technologies, including solar panels, biofuels, ground pumps and smart grids. By strategically leveraging these resources, the community aims to achieve partial energy independence, sustainability and resilience for its members.

### 2.Success Factors

- **Strong Collaboration:** Local businesses, a school, an apartment building and the municipality worked together to tackle organizational and technical challenges.
- **Comprehensive Energy Audit:** Focused on improving energy management and waste reduction while identifying potential energy distribution points.
- **Innovative Financing:** A funding model combining community contributions, short-term loans and grants from the Ministry of Economy ensures financial sustainability.
- **Legal Foundation:** The community operates as an interest association, ensuring alignment with Slovak legislation and providing a solid governance structure.
- **Advanced Technology:** The integration of renewable energy systems, comprising photovoltaics, solar panels, biofuels, ground pumps and smart grids, enhances efficiency and stability, with renewables accounting for 35% of the energy supply.

### 3.Outcomes and Impacts

Set to commence operations in the second half of 2025, the Energy Community has made notable strides:

- **Environmental Benefits:** Up to 35% renewable energy integration reduces reliance on conventional sources and improves efficiency during summer months.
- **Economic Impact:** Creation of two managerial positions and three roles in customer service or sales strengthens local employment.
- **Energy Efficiency:** Theoretical models suggest a 15-20% improvement in efficiency and stability compared to previous energy practices.

### 4.Lessons for Others

Challenges encountered during the community's formation offer valuable insights:

- **Clear Governance:** Establish comprehensive documents detailing roles, rights, financial contributions and conflict resolution processes.
- **Sustainability Planning:** Align internal policies with production plans, sales procedures and community needs to ensure long-term growth.
- **Effective Personnel Management:** Recruit, train and motivate staff with clear career progression pathways and mentoring techniques.

### 5.Conclusion

TEEK Trenčín serves as a blueprint for establishing resilient Energy Communities. Key recommendations include careful site selection, long-term data monitoring, well-defined governance structures and professional leadership. With these foundational elements, communities can successfully navigate challenges and create sustainable energy solutions that benefit all members.



# 08. Slovenia

## The Hrastnik Solar School Energy Community

### General coordinates

<b>Year of foundation:</b>	2024
<b>Area:</b>	Slovenia, The Sava Valley/ Zasavje region, Hrastnik municipality
<b>Specifics:</b>	Cooperative-developed solar power initiative for self-consumption: a pioneering model of public-commons partnership in Slovenia.
<b>Technology:</b>	291 kW photovoltaic power plant
<b>Av. annual electricity consumption:</b>	118 MWh production since 15 July 2024
<b>Initiative:</b>	Cooperative (NGO, municipality and citizens)
<b>Contact details:</b>	<a href="mailto:zadruga@zeleni-hrastnik.si">zadruga@zeleni-hrastnik.si</a>
<b>Website:</b>	<a href="http://www.zeleni-hrastnik.si">www.zeleni-hrastnik.si</a>

### 1. Overview

Located in the Sava Valley region of Hrastnik municipality,



this pioneering initiative integrates solar power to serve 16 homes, 3 public buildings (school, pool, municipal office) and 2 small businesses. Using a 291-kW solar power plant installed on Hrastnik Primary School's rooftop, the community focuses on public-commons partnerships, reducing dependency on traditional energy sources and offering sustainable energy. Expected to lower carbon emissions by 1.5 tons annually, the initiative highlights environmental responsibility while dropping electricity costs by 30% in the first 13 years, with savings projected to increase thereafter.

## 2.Success Factors

Key contributors to the project's success include:

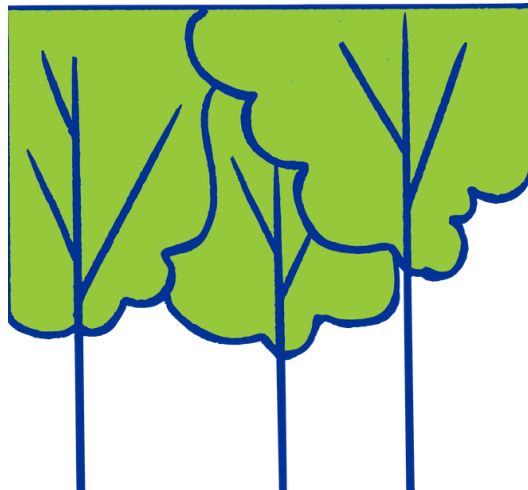
- **Collaborative Partnerships:** The Focus Association for Sustainable Development partnered with the Municipality of Hrastnik and the Zeleni Hrastnik Energy Cooperative to co-create the initiative, ensuring it meets local energy needs.
- **Democratic Governance:** The cooperative model provided equal voting rights for all members, promoting fairness and inclusivity.
- **Financial Planning:** Member contributions, government subsidies and an Eco Fund loan enabled the project's realization.
- **Strategic Design:** Engaging stakeholders in workshops secured alignment with community energy goals, while connecting the solar plant to the grid ensured operational efficiency.

## 3.Outcomes and Impacts

- **Environmental Gains:** CO<sub>2</sub> emissions reduced by 150,234 kg per year on average, promoting renewable energy adoption.
- **Economic Benefits:** Participants save ~30% on electricity bills in the first 13 years, increasing to 65% after loan repayment.
- **Social Impact:** Workshops fostered a sense of ownership, strengthened local collaboration and encouraged broader sustainability awareness.

## 4.Lessons for Others

- **Legal Framework:** Clarify legal ambiguities early to streamline agreements and cooperative operations.
- **Grid Collaboration:** Secure self-supply agreements with suppliers, to avoid delays.
- **Community Involvement:** Build trust and engagement through bottom-up approaches, using communication tools like leaflets, posters and meetings.



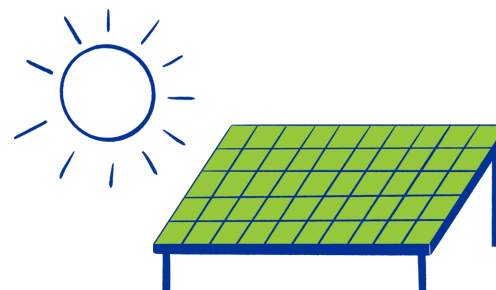
## 5.Conclusion

The Hrastnik Solar School Energy Community exemplifies the success of cooperative, community-driven renewable energy projects. With its inclusive governance, strong financial model and significant environmental impact, it provides a replicable framework for other municipalities. It showcases how democratic decision-making and collaboration lead to affordable, sustainable energy for members.

# Luče

## General coordinates

<b>Year of foundation:</b>	2020
<b>Area:</b>	LučeVillage, Upper Savinja Valley in Štajerska
<b>Specifics:</b>	First Energy Community
<b>Technology:</b>	PV, battery storage
<b>Av. annual electricity consumption:</b>	n/a
<b>Initiative:</b>	COMPILE Project
<b>Contact details:</b>	<a href="mailto:zadruga@zeleni-hrastnik.si">zadruga@zeleni-hrastnik.si</a>



### 1.Overview

Situated in the Upper Savinja Valley, Luče is a small rural village that faced challenges like a weak power grid and frequent outages, especially during adverse weather conditions. As part of the EU-funded COMPILE Project, Luče was selected as a pilot site to establish a cooperatively enhanced Energy Community. By integrating renewable energy resources and storage solutions, the initiative aimed to address supply reliability issues and increase local energy self-sufficiency. Key technologies include solar power, batteries and electric vehicle chargers. This project represents an important step in transitioning from a centralized energy system to a flexible, decentralized grid, aligning with EU Green Deal Goals.

### 2.Success Factors

Several factors contributed to the community's success:

- **Technology Implementation:** The installation of solar power plants (102 kW total capacity) across 9 buildings, complemented by household batteries and a community battery (150 kW/ 333 kWh), ensured energy reliability.
- **Strategic Infrastructure:** Modifications to the transformer station enabled seamless integration of the community battery into the grid and allowed island-mode operations.
- **Collaborative Efforts:** Engaging residents, local authorities, energy suppliers and service providers through workshops fostered ownership and supported collective investment schemes.
- **Innovative Vision:** Testing scenarios for high renewable energy penetration demonstrated scalable solutions for weak-grid rural environments.



### 3.Outcomes and Impacts

- **Environmental Benefits:** Significant reductions in greenhouse gas emissions, promoting renewable energy adoption and decarbonization.
- **Energy Reliability:** Improved stability in the local energy system during normal and extreme conditions, enabling sustainable electricity generation.
- **Socioeconomic Gains:** Enhanced community engagement, increased energy self-sufficiency and savings through renewable energy initiatives.



### 4.Lessons for Others

The Luče Energy Community experience highlighted several key lessons:

- **Battery Integration Challenges:** Even with advanced storage systems, managing weak grids requires innovative solutions.
- **Behavioral Change for EV Charging:** Flexible local energy markets need alignment with user practices to maximize benefits.
- **Community Engagement:** Bottom-up approaches, collective investment and stakeholder collaboration build trust and ensure long-term participation.

### 5.Conclusion

Luče exemplifies how rural communities can transition to decentralized energy systems through cooperative efforts. The model leverages renewable energy technologies and community-driven investments to achieve self-sufficiency, environmental benefits and socio-economic improvements. By focusing on tailored solutions for local needs, Luče demonstrates the transformative potential of Energy Communities in advancing sustainability goals.

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