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Community Energy for All

The Story of Building an Energy Community in Czechia's Ústí nad Labem Region


TOGETHER
WE POWER
THE
ENERGY TRANSITION

Contents

Summary

This publication summarizes the experience of establishing the SK Žárovka Děčín energy community — one of the first ones in the Czech Republic to actively involve people at risk of energy poverty, tenants, women, young families, and other groups not usually engaged in energy projects. It combines practical field experience with the results of focus groups with people experiencing energy poverty, as well as legislative insights and recommendations for further initiatives.

In this publication, you will find:

- a comprehensive introduction to community energy, its legal framework, and the principles of electricity sharing;
- practical guidance on how to establish an energy community – from organizing people to choosing an allocation key;
- a description of the main obstacles – financial, legal, technical, and social – and recommendations on how to overcome them;
- step-by-step experience from building community energy in Děčín;
- results from two focus groups with people affected by energy poverty.

Key messages:

- **Energy poverty in Czechia is on the rise** – according to research, up to 12% of the population is affected. People mention high energy prices as one of several simultaneous pressures on household budgets.
- **People in rental housing and/or low-income households often feel trapped** – they cannot insulate their homes, change technologies, or move; their only strategy is to reduce consumption, which can lead to social isolation.
- **People tend not to trust institutions and suppliers** – they often do not know where to turn, some have had negative experiences with authorities and energy providers, and they struggle to understand pricing and fear hidden fees.
- **Community energy has the potential to help,** but it must be **extremely simple, understandable, and transparent.** People need **personal support** from someone they trust in order to get involved in community energy. In our example, the method of **community organizing** has proven successful.
- The biggest barriers to participation in community energy are: **lack of money, insecure housing, technical concerns, lack of trust in institutions, and the complexity of the system.**
- People appreciate community energy for the possibility of **price stability, greater control and independence from suppliers, environmental friendliness**, and the feeling that they can be part of a shared project.

Introduction

Skyrocketing energy prices have put many Czech households in a difficult situation in recent years. According to a study by the University of Ostrava and the Za bydlení (For Housing) initiative, in 2023 up to 1.3 million people in Czechia — representing 12% of the population — were affected by energy poverty: a situation in which people cannot afford to heat their homes to a reasonable temperature without limiting other basic living needs. This is almost double the figure from the previous three years.[1]

Energy poverty is primarily a threat to low-income households which are struggling not only with high heating costs but also with rising electricity prices — both essential for ensuring decent living conditions. It particularly affects tenants, who have very limited options for improving their situation. This text is based on the assumption that community energy — i.e. sharing energy generated from one's own renewable sources among individual households, businesses, or buildings — may be one way to reduce electricity costs for people affected by energy poverty.[2] In 2025, Czechia is now both technically and legally ready for community energy. But how can this opportunity be made accessible to those most at risk of energy poverty?

Recently, the global energy sector has been changing rapidly. Renewable energy sources, especially photovoltaic and wind power stations, are growing most dynamically. According to research data from the United Nations (UN) and the International Renewable Energy Agency (IRENA), the vast majority of newly built renewable energy sources are now cheaper than new fossil fuel power stations.[3] In the European Union, renewables produced almost half of all electricity last year, surpassing total generation from coal and natural gas combined.[4]

The Sun and wind will become even more important for energy production in the future, and the global trend toward their expansion can hardly be reversed. However, the way we transition to renewable energy is equally important. We need to answer several fundamental questions: How can we make the most effective use of the characteristics of renewable energy, particularly its local availability and variability over time? How can these technologies meet basic human needs, including housing with acceptable temperatures in both winter and summer? And how can we ensure that the costs of the energy transition do not fall on the poorer sections of the population?

In recent years, we have experienced the transformation of the energy sector primarily in our wallets. The energy crisis — triggered by a sharp rise in natural gas prices following Russia's invasion of Ukraine — has led to a significant increase in energy costs for households and businesses. For energy producers, however, it brought record profits. For example, the state-owned oil giant Saudi Aramco reported profits of approximately USD 161 billion in 2022 — the highest ever recorded by an oil company.[5] The five largest private oil companies together earned around USD 281 billion.[6] Energy companies in the Czech Republic also recorded extraordinary profits: for instance, the ČEZ Group reported nearly CZK 100 billion for 2022, almost seven times its 2021 profits,[7] and SevEn, the second-largest electricity producer in Czechia, saw similarly remarkable results.

The vast majority of the money that Czechs sent to energy suppliers during the crisis was not even taxed and therefore did not become public funds that

could be used for energy-efficient building renovations or the development of affordable green energy. Instead, it turned into private profits for fossil fuel oligarchs such as Daniel Křetínský and Pavel Tykač, who have since taken turns occupying the top positions in the Czech billionaire rankings.[8] Given the enormous financial power of fossil fuel companies, we can expect their influence on energy policy and the market to grow. It seems naïve to believe that the same fossil fuel sector will initiate energy policies focused on people's needs.

Ordinary people — especially those at risk of energy poverty — are often provided with advice on what to do: from wearing extra layers of clothing to using lids while cooking. Nevertheless, as we will show in the following chapter, those struggling with high energy bills are already doing their best, often at the cost of severely limiting their basic needs. What they lack is adequate support, affordable quality housing, and decent wages.

In August 2024, an amendment to the The Energy Act ("LEX OZE II") made it possible for people to share electricity directly from their own sources. Can this really help vulnerable groups? To find out, we decided to support the establishment of an energy community in Děčín, where we operate, involving groups that are often excluded from energy projects. These include women, young parents, single mothers, and tenants. Together, we are exploring both the opportunities that community energy offers and the barriers it still faces. This work is taking shape in the form of the SK Žárovka Děčín energy community, whose story — and the stories of its members — are shared in this publication.

We also organized two focus groups to map the experiences of people affected by energy poverty and to understand their reactions to the community energy model. Their opinions must be taken into account when designing energy projects if community energy is to have any real chance of addressing their problems and meeting their needs. This publication thus offers context and first-hand experience from building an energy community in the Ústí nad Labem Region. One of its goals is to describe the practical process of organizing a new energy community in order to give other interested parties a more realistic idea of how to do it.

What are energy communities and why to establish them?

Community energy means that energy is generated and shared among individual households, or, for example, municipalities and companies. It is intended to gradually change the system that currently prevails in Czechia, where almost all electricity is produced by large centralized (coal, gas, or nuclear) power stations and sent in one direction to households and other consumers. Any surplus energy from renewable sources produced by households themselves (e.g., from photovoltaic panels on the roof) is then purchased by electricity brokers, but this is not very profitable for small producers.

The expansion of community energy is creating a decentralized network of

smaller sources (such as photovoltaics on the roofs of houses, schools, offices, sports centres, shops, farms, and so on) that cooperate with each other and transfer energy directly. Community energy is thus a step towards the decentralization of energy production and consumption. It can help make electricity and energy more accessible to the local community and stabilize prices. At the same time, it can ensure that money spent on energy remains in the local community instead of going to distant owners of large energy corporations. It is therefore an energy system based on the principles of solidarity and mutual support rather than profit.

Community energy means:

- **more stable and predictable costs** (part of consumption is covered by own production);
- **money stays in the locality** (revenues and savings are returned to home repairs, community funds, or assistance to those in need);
- **collective decision-making** (on tariffs, investments, and priorities, which promotes the democratization of energy, the development of participation, and people taking control of meeting their basic needs).

Centralization vs. decentralization

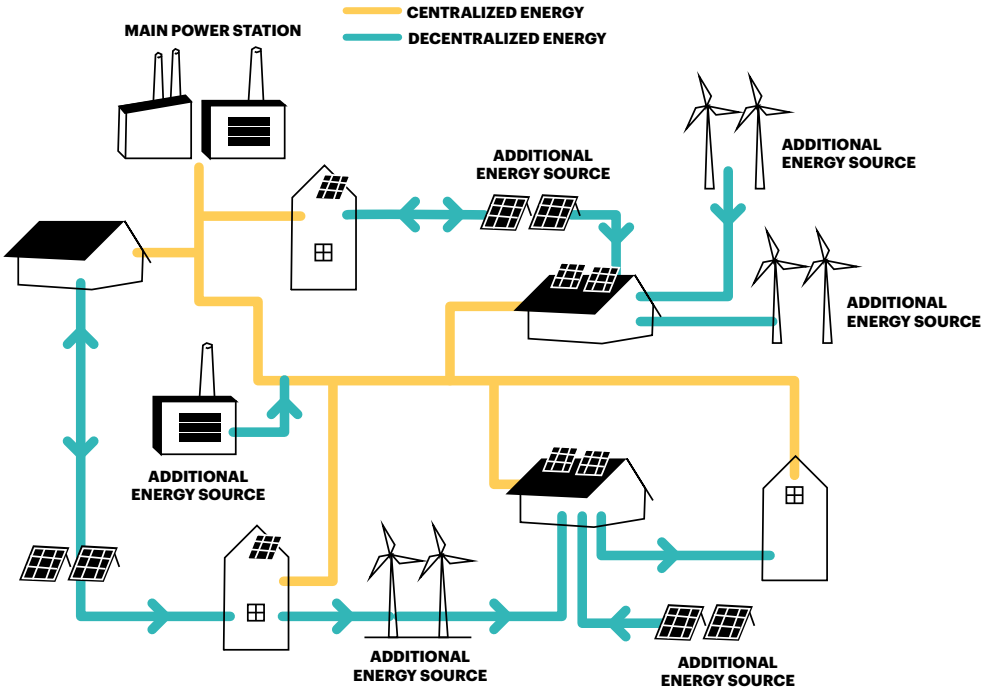

Fig. 1: Visualization of the difference between centralized and decentralized energy systems
Source: https://www.eon.cz/radce/blog/co-je-komunitni-energetika/

In the Czech Republic, an amendment to the Energy Act enabled electricity sharing in 2024, and at the time of publication of this text (December 2025), approximately 30,000 users are connected to the network, who have already shared more than 30 GWh of energy among themselves. In relation to the country's total electricity consumption of 58 TWh, community energy accounts for only 0.0517%. However, according to the Hnutí DUHA NGO, energy communities could cover a significant portion of household consumption in the future (up to ~80% with the right combination of measures). In terms of installed capacity, this represents 8 MWh of electricity and 8 MWh of heat, which is equivalent to four Temelín nuclear power stations.[9] Energy communities can thus make a significant contribution to the transition to renewable energy sources and climate protection measures.

Virtually anyone who consumes electricity, whether at home, at work, or at a cottage, can participate in community energy. You can create an energy community with a group of neighbours, in cooperation with the municipality or even a company. Anyone in the energy community can consume energy, but at least one household (or a company or municipal building) must also produce energy and share it with others. This could be, for example, a single-family home with a photovoltaic power plant on the roof that transfers its surplus to neighbours' flat or cottage, or a municipality that transfers energy from a large photovoltaic power plant on a children's and youth centre to municipal flats. Another example could be a group of citizens who jointly invest in a renewable energy production facility, such as a photovoltaic power station, and distribute the energy produced according to a mutual agreement (allocation key). This publication mainly deals with the latter model.

What are the benefits?

Strengthening local communities and active citizen involvement

Community energy projects motivate people to become more engaged in decision-making on energy and other public issues. They promote participation and democratic involvement in meeting basic needs, reducing dependence on market mechanisms. In this way, they help build community wealth and economic self-sufficiency. Joint activities also foster the creation of new relationships within the community, strengthen mutual support, and deepen cooperation between residents, businesses, and local authorities. The networks and communication channels formed around an energy community can also be used to address other needs of its members — such as mutual childcare, sharing home-grown produce, or providing access to affordable organic food through partnerships with local farmers. For example, members can pre-order boxes of vegetables and other products via community-supported agriculture and pick them up during community meetings.[10]

Affordable energy as a common

Community energy projects emphasize that energy is not merely a commercial commodity, but one of vital commons essential for a decent quality of life. They reinforce the view that energy must be managed fairly, transparently, and in the interests of the entire community—rather than serving solely as a source of profit for energy companies at the expense of consumers or people experiencing energy poverty.

Involving groups that are usually excluded from energy projects

Existing community energy initiatives are often dominated by university-educated men with higher incomes.[11] But this does not have to be the case. For energy to truly serve everyone, the perspectives and needs of all social groups must be included in its development. Community energy creates opportunities for the active participation of people who are usually excluded from energy projects such as women, young families, tenants, people without technical education, and those at risk of energy poverty or lacking capital to build their own energy sources. In fact, such people make up the majority of society. Energy communities also offer a way for tenants to participate in energy production—either through a community formed within their building or by connecting their flats to a shared energy scheme.

Social justice and affordable energy for all

Energy communities help address energy poverty by providing access to more affordable energy and energy-saving measures. These may include solidarity tariffs for low-income households, mutual assistance with home energy improvements, or using revenue from energy sales to renovate housing further contributing to energy savings.[12] Even monitoring one's own energy use often leads to reduced consumption.[13] At the same time, energy communities help ensure that the benefits of renewable energy are not limited to large corporations but also reach ordinary households. Because community members best understand their own needs, they can respond quickly and effectively to local challenges.

Economic benefits for the region

According to several studies, the total economic benefit of community energy projects for local areas can be two to eight times higher than that of similarly sized privately owned projects.[14] This is because, under community ownership, both investments and savings remain within the region where they were generated thus strengthening the local economy and creating jobs.

At the same time, communities increase their energy independence and reduce their reliance on imported energy. With the right setup, they can also support and expand other local solidarity-based economies.[15]

Environmental benefits and improved quality of life

By promoting renewable energy and energy-efficient technologies, communities contribute to reducing emissions and improving air quality—positively impacting public health. This is especially significant in regions affected by mining or heavy industry. At the same time, communities enhance regional capacity to adapt to the climate crisis, mitigate its causes, and build resilience to its impacts.

Education and promoting energy democracy

Community energy projects often serve as laboratories for testing both traditional and innovative economic principles, organizing collective action, and sharing experiences among members. Communities can also dedicate time and resources to supporting the development of other energy communities in their region by sharing knowledge and practical know-how.

What does an energy community look like?

Let's imagine a group of neighbours who agree to install a photovoltaic power plant on one of their homes and then share the surplus electricity among the other households in the group. A key condition of community energy is that the electricity must be consumed at the same time as it is produced — or within a fifteen-minute interval. If the sun is shining at noon, the electricity generated can be used by households between 12:00 and 12:15. Alternatively, the group may decide to invest in batteries to store electricity for later use.

The EDC[16] (Electric Power Data Centre) does not actually send the specific electrons generated on your neighbour's roof directly to your flat. That would only be possible if you had wires physically connecting your houses and were not connected to the public distribution grid at all — which in Czechia is practically never the case. In reality, your neighbour sends the surplus electricity from their roof into the grid, while the EDC tracks who should be credited or billed for that electricity — that is you and the other members of your group — and calculates consumption and production.

As a result, you do not pay for the amount of electricity that another member of your community has sent to the grid when you consume the same amount from the grid. The only catch is that even when you join a community energy scheme you still have to pay the distributor fee and the regulated components of the electricity price — roughly 50% of the total price of grid-supplied electricity. You will continue to pay the regular price for any additional power that is not obtained through community sharing. There is no fee for joining a community energy scheme itself.

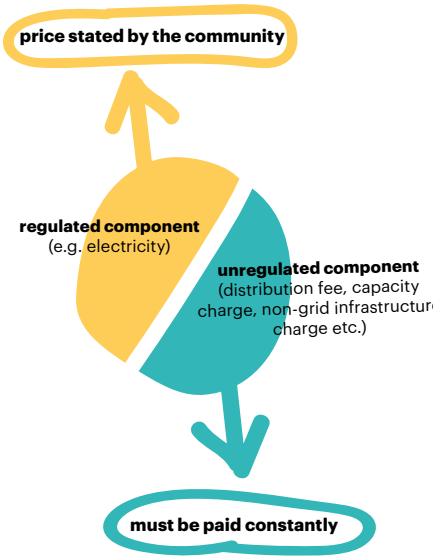

Fig. 2: Regulated and unregulated components of energy price

An exception is the household that owns the energy source — for example, your neighbour whose home hosts the photovoltaic plant. It is most advantageous for them to use as much electricity as possible directly on site, thereby avoiding distribution fees. They can use that electricity for free, but they do not receive payment from their supplier for the surplus they export to the grid for others in the community.

You can participate in electricity sharing either as an active customer, aka prosumer (a model for up to 11 members nationwide, including the generation facility) or as an energy community (a model allowing up to 1,000 consumption points within a maximum of three neighbouring municipalities[17]). For the former option, all you need to do is register with the EDC. For the latter, you must establish a shared legal entity, such as an association or cooperative. The payment arrangements for shared electricity are entirely up to you and your group. For instance, you can agree that surpluses from your neighbour will be shared free of charge, or you can set a price — ideally lower than the market price for grid electricity.

The energy source, such as a photovoltaic system, can be purchased by your neighbour personally (possibly with support from the New Green Savings subsidy program). Also, it can be bought jointly by your group, and the money collected for electricity can be used to cover the investment costs. All such arrangements, however, must be formalized by contract. The price of shared electricity can also be adjusted to reflect the capacities and needs of individual households. It is you who sets these rules yourselves (see the section *"What is an allocation key?"*), not the EDC, which only provides an overview of consumption and production data. You can experiment with pricing and change it as you wish — and after a few months or a year of operation evaluate whether everyone in your group is satisfied with the settings or whether adjustments are needed.

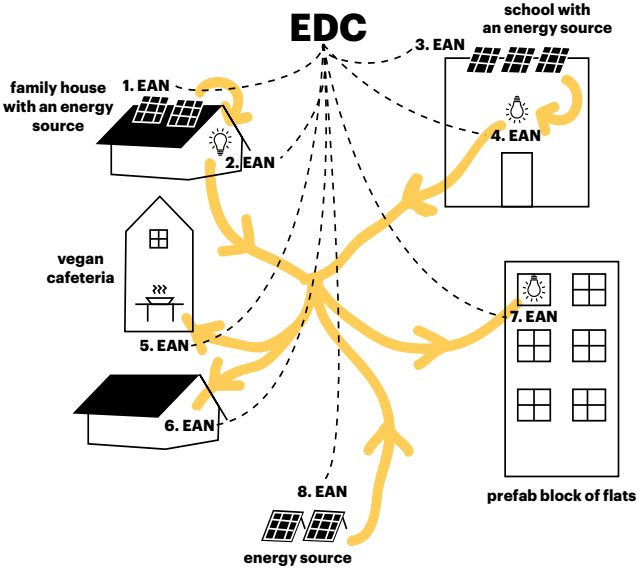

Fig. 3: An example of a group consisting of 5 end-user points and 3 production facilities – i.e. the total of 8 EANs (European article number) – that can operate as active customers or an energy community.

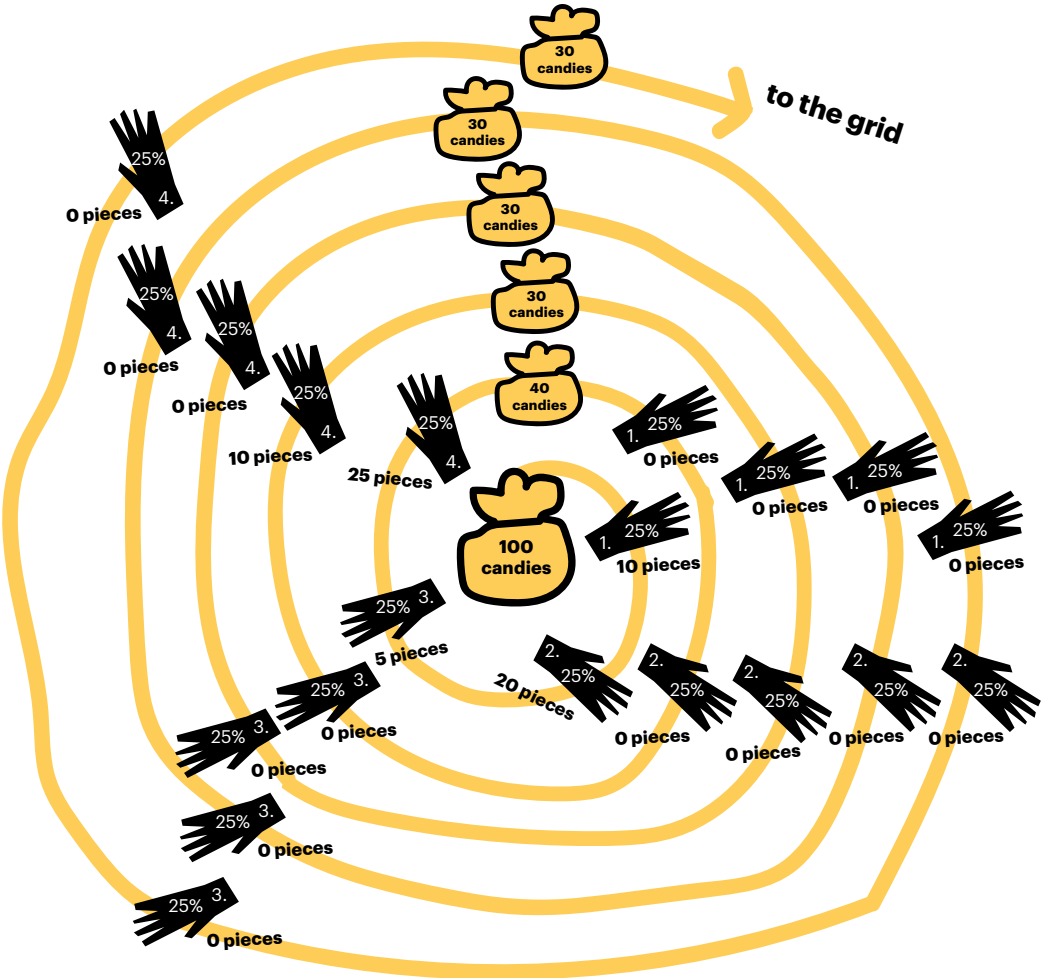

Fig. 4: Visualization of the allocation key – example 1

What is an allocation key?

An allocation key is a joint agreement among all community members that determines how the produced energy will be distributed. It is up to the participants to decide on the method — for example, an equal share for each household or a distribution based on individual consumption levels. The new community energy project then reports the selected key to the Electric Power Data Centre (EDC). There are three types of allocation keys: static, dynamic, and hybrid (combined). Since the EDC in Czechia is currently operating in a provisional sharing mode until August 2027, these options are not yet available. However, a temporary alternative is available: either static, or static iterative method.

Static allocation key

Electricity is distributed according to pre-set percentages. Each consumption point is entitled to use its share of electricity. If this electricity is not consumed, the unused portion is fed into the grid as surplus.

Static iterative allocation key

In this model, electricity is repeatedly offered to all participants in the sharing arrangement, in a pre-agreed ratio, through five consecutive rounds.

What does it look like?

Example 1: Four households are part of a sharing scheme and use a common renewable energy source (not located in any of the connected buildings, so no one consumes electricity directly at the point of production). The allocation key is set so that each household receives 25% of the generated electricity.

Let's imagine candy instead of electricity: there are 100 pieces of candy, and each household is entitled to 25. The first household eats 10 pieces, the second eats 20, the third eats 5, and the fourth eats 25 — leaving 40 pieces. The remaining candies are again offered in the 25% ratio — 10 pieces for each household. The first, second, and third households already have enough and eat nothing, but the fourth household has guests and eats another 10 pieces. There are 30 candies left, which are again distributed according to the allocation key, and then once more, for the fifth and final round. The candies that remain uneaten in the last round (i.e. the unused electricity) are sent to the grid.

Example 2: Four households participate in the sharing scheme. One of them has solar panels on its roof. Again, let's imagine candies instead of electricity. The households decide that the one with the panels will always eat as much as it can first, because it does not need to pay anyone to "deliver" the candies. The remaining three households agree on a distribution key for the remaining candies: the largest household receives 50%, and the other two each receive 25%.

Out of 100 candies, the household with the source eats 50 immediately, leaving 50 to be distributed. The first household is entitled to 25 candies, and the other two to 12.5 each. The first eats all 25, the second eats 12.5, and the third eats only 10. There are 2.5 candies left. These are redistributed: the first household is entitled to 1.25

candies, and the other two to 0.625 each. The first and second households eat their shares, but the third doesn't need any. As a result, 0.625 candies remain, which can be redistributed again in the next round. After the fifth and final round, any leftover candies (i.e. unconsumed electricity) are sent to the grid as surplus.

The advantage of this method is that it increases the likelihood that the energy generated within the group will also be consumed within the group, rather than being sold to the grid.

Legal and technical aspects

From the perspective of Czech law, energy sharing is made possible by the Lex OZE II amendment. This amendment led to the establishment of the EDC where all consumption points wishing to share electricity must be registered. Once registered with the EDC, your electricity distributor (ČEZ Distribuce, EG.D, or PRE) is required to install a smart meter free of charge. This allows both the EDC and consumers to monitor energy production and consumption in real time. This represents an important step towards smart grid technologies, which enable different energy sources to be coordinated within a single transmission system.

1. **31 December 2023** – The *Lex OZE II* amendment enters into force. It becomes possible to establish an energy community and register it with the Energy Regulatory Office.

2. **1 August 2024** – Launch of the EDC information system for registering energy sharing.

3. **1 September 2024** – Start of trial energy sharing operations. Energy sharing is available in two modes. Either as an *active customer* sharing within a group of up to 11 members (consumption points) located anywhere in Czechia, or as an *energy community*, currently available in a limited mode, allowing sharing between up to three neighbouring municipalities, or in Prague, between up to 1,000 consumption points.

4. **1 July 2026** – Expected launch of the full version of the EDC information system, allowing energy communities to share electricity without restrictions on territory or number of members.

Stories of members of the SK Žárovka Energy Community in Děčín

New energy in the Czech–German border region

In recent years, the world has been swallowing one bitter pill after another: a financial crisis, a crisis of values, a climate crisis, a healthcare crisis, a housing crisis, an energy crisis... and, finally, a crisis of humanity itself in the form of armed conflicts. I keep wondering where all this comes from—and fearing how many more crises are still waiting ahead.

What can I possibly do, as an overworked and chronically exhausted single mother? These issues are so complex and global that whatever I do feels like a drop in the ocean. So I sit there, staring into this imaginary, vast, impenetrable ocean of world problems, feeling utterly helpless.

And then, suddenly, a sea-gull flies by! Named Vzletný racek ("The Soaring Sea-gull"), this community of young people establishing cooperative housing in Děčín is saving a crumbling villa in the heart of the Sudetenland, fixing the roof with their own hands, organizing neighbourhood gatherings and workshops — reviving human connections and coming up with revolutionary ideas that, at first glance, seem completely out of reach to me.

I tell myself it probably won't last long. Generating your own electricity — and even sharing it with others? We don't know anything about that! And even if we did, the network of energy giants is so impenetrable that trying to squeeze in between them feels hopeless.

Then comes the first meeting of the future energy cooperative. I take a chance and go see for myself. The meeting is well-structured, professionally run, and yet so wonderfully democratic that I can't help smiling inside. There's even a trip to Austria to visit the existing energy cooperative Robin Powerhood—to learn, share experiences, and bring inspiration home. Hmm... My irredeemably sceptical mind whispers that if everyone has a say in every little thing and we go on excursions, we'll never actually achieve anything.

And yet, just a few months later, the association is officially registered, and there's a campaign plan ready for the first photovoltaic panels. That's when it hits me: this is the paradigm shift this generation is bringing about. The ability to build — or perhaps, more precisely, to reclaim — something that belongs to us is a skill that, in the whirlwind of daily worries, many of us have forgotten we even have. We've come to believe it's not for us. That we don't have the knowledge, time, or money... so we simply leave it to others. Wrong! It is possible. Step by step. Without aggression, without mobbing, with respect, humility, and, at the same time, a healthy confidence born of belonging to a living civil society.

Whatever happens with SK Žárovka Děčín (and I believe it will be something good :), I'm deeply grateful for this experience. It gives me hope and the conviction that there's no point in sitting idly by and looking at the world and the distribution of power with the same resigned eyes. Because what this community brings to the lowest city in the country (both geographically with its altitude of 135 meters and, in many ways, socioeconomically) is — quite literally — new energy!

How did we do it? Our story of building an energy community

We set ourselves the goal of creating an energy community that would be accessible to people at risk of energy poverty — not only to homeowners, people with above-average incomes, or those with advanced technical knowledge. Our primary aim was to help launch the first Czech energy community for low-income residents. Our secondary motivation was to benefit from affordable renewable energy ourselves. At the same time, we wanted to go through the process firsthand: to map the obstacles, find solutions, document our experience, and — after successfully establishing our first energy community — share our know-how freely with other groups in similar situations and with similar goals.

We see this topic as essential. Our community does not have surplus financial resources, but that does not mean that all members are in debt or living in poverty. However, this situation is very common in Czechia: around one-fifth of people have no savings and cannot afford unexpected expenses above CZK 11,000 (approximately EUR 400).[18] This applies not only to deprived groups, but also to many working class families and older adults living on the edge of financial stability.

In this publication, we share our experience from the process of establishing an energy community, which we successfully completed this year. Further insights will come from its long-term operation. We would like to emphasize that this work was made possible largely thanks to external financial support from several foundations and public grants. These funds also covered the costs of study trips abroad and legal consultations.[19] We hope that new community energy projects will be able to build on our experience — making their creation easier, cheaper, and more accessible to everyone.

Building on existing relationships

Any collective effort needs good soil and strong roots. It is therefore invaluable to build on existing relationships in our communities and neighbourhoods — on mutual trust and the fact that we already know each other's strengths and weaknesses. That's exactly what we did.

Our organization has been active in northern Bohemia for many years. Our headquarters and one of our offices are located in Děčín, where our staff also live and work on community energy initiatives. This has allowed us to develop long-term friendships and local partnerships. We began by reaching out to people closest to us — those with whom we had already cooperated on various community activities, such as cleaning the Jílovský stream, carolling with children on St Nicholas Day, or helping to organize a neighbourhood festival. As an organization involved in community energy for several years, we have explored many possibilities and learned from a few dead ends. At the same time, our relationships with local people have helped us maintain trust and a shared sense of purpose.

Vital needs at the meetings of an emerging energy community

1. Caring for the group

Families and parents often lack capacities to dedicate more than one day at a time to community activities. Meetings should therefore be designed with their needs in mind — held in accessible and safe locations, with childcare provided where possible. When preparing refreshments, check whether anyone has dietary restrictions or special needs.

2. Managing capacity

Many guides on "how to build a community energy project" recommend an in-depth process of visioning and planning. In practice, however, people often lack the time and capacity for such a process. It is important to strike a balance between thorough preparation and maintaining a realistic level of engagement so that members can stay actively involved.

3. Building basic knowledge

Start by ensuring that all members share a basic understanding of what community energy is and how it works. At the same time, be mindful not to overwhelm people with too much information. Each meeting should lead to visible progress in the project, rather than leaving participants overloaded or discouraged.

1-on-1 meetings

Initial gathering of opinions and concerns, finding relevant answers, and preparing the next meeting based on members' needs

Following the Lex OZE II amendment to the Energy Act, which made electricity sharing between households possible, we decided to explore this option and reach out to other people in Děčín to collaborate. Since this model of energy sharing is still new, there were no existing examples in the Czech context to refer to. It therefore proved essential to meet people in person — individually — to explain our intentions and listen to their opinions and concerns. Whenever we didn't know the answer to a question, we wrote it down and later sought clarification from experts.

Project leaders sometimes tend to rush ahead sending out mass emails or calling large meetings without first preparing the ground. Yet a personal conversation or

phone call is worth a thousand emails. Taking the time to talk to people individually can often determine the success or failure of a subsequent meeting. It helps us better understand people's attitudes and expectations, and thus prevent potential misunderstandings. Personal contact also allows for greater focus and builds a more pleasant atmosphere for both sides. However, this approach requires time and patience.

The most frequent questions raised by members fell into these main categories:

- **Technological:** How long is the lifespan of photovoltaic panels? How can they be recycled once they stop working? What role does the battery play—and is it possible to operate without one?
- **Property rights:** What about insurance for the panels and compensation in case of damage? What happens if a member decides to leave the sharing group?
- **Economic:** Is it possible to use a New Green Savings subsidy for the generation facility from which the shared electricity comes?

When negotiating similar projects — for example, within a homeowners' association (HOA), where decisions are made collectively through meetings and votes — it has become obvious that if concerns and uncertainties are not addressed beforehand, they will inevitably surface during the joint meeting. There is often little room to deal with them effectively in such a setting, which can make discussions longer and more complicated. This, in turn, can create an impression that the project is overly complex or inaccessible, leading to a loss of trust among participants. That is precisely why individual conversations with households and community members are so important. They allow us to map concerns and expectations in advance and prepare responses ahead saving valuable meeting time. Time is a precious resource for everyone, especially for families with children and working people. We cannot expect participants to spend hours studying materials or attending lengthy meetings, so the process must be as simple and accessible as possible. In addition to the initial financial investment, it is equally important to consider the time investment that participation requires.

First community meeting: Understanding energy and mapping of expectations, needs and resources

Based on the questions, concerns, and needs we had gathered, we prepared a programme for the weekend meeting and sent it to the group. We soon discovered that a two-day meeting was too long for many participants. Informing them about the meeting agenda in advance proved very important — it allowed us to adapt the program to their needs. To facilitate the meeting, we used methods that had proven effective in various participatory projects. Some of them are described in the document *Lektorské minimum* available on our website.[20]

Based on this experience, we consider the use of visual materials essential. Energy is full of new concepts and processes that can be difficult to explain in words,


¡VOJE MÁMA!

so visual aids are extremely helpful — one good picture is sometimes truly worth a thousand words. And there is no need to produce professional graphics. For example, we drew a simple sharing model with a marker on cardboard, which we could display at the meeting even without a projector. This also made it possible to hold the meeting outdoors in the garden. This setting was appreciated by the children, who could play outside while remaining within sight of their parents. Furthermore, baby-sitting was provided throughout the event, allowing both parents to participate actively. This prevented the situations when childcare responsibility automatically falls to women while men discuss energy and investments. Refreshments and lunch were also provided on site so that the entire day could be devoted to preparing and discussing our community energy project without interruption.

During the initial interviews, it became clear that people had very different levels of knowledge and understanding of the energy system (how it works, how prices are determined etc.). We therefore decided to dedicate the first part of our meeting to building a shared foundation. Creating a common knowledge base helped participants engage in the discussion, reduced the sense of complexity and inaccessibility, and enabled more informed participation. With a topic as complex as community energy, however, continuous learning remains essential at every step of the process.

Next, we focused on gathering ideas, needs, and available resources within the community. We used the World Café method: creating thematic stations, each led by one facilitator (who stays with that topic throughout) while participants move around them to share their views. The facilitator then summarized each topic for the group, providing a comprehensive overview for everyone. We continued to work with this input, which became an important resource for future planning. We learned why people wanted to join, what direction they hoped to take, how much time or money they could invest in community activities, who knew a good electrician, and who had a suitable roof for solar panels.

It turned out that although we lacked sufficient financial resources, we had several suitable rooftops for the power plant. We also identified who had the time and willingness to contact photovoltaic suppliers and who wanted to take part in the campaign to raise funds. However, the resources and capacities of a community evolve over time, so it is important to stay in regular contact and keep each other informed about changes as they occur.

Creation of the sharing model

At this point, there was no households in our group that already had a photovoltaic power station installed and could immediately start sharing surplus electricity. In such cases, establishing an energy community is much easier as it basically means registering with the EDC and agreeing on one of the allocation keys. In our case, however, we first needed to purchase a new generation source. It was thus important to understand the sharing model in advance — to know how much electricity we can realistically consume, and therefore how much to invest in the system.

Based on a financial and installation offer for photovoltaics for one of our members, we prepared a basic explanation of the potential model in advance. This included the likely payback period, system lifespan, and projected energy savings. We presented this information interacti-

vely, so that members could clearly see what savings individual households might achieve, how much installation would cost, and how quickly the investment could pay off. We also needed to determine how much energy our group consumes overall and what installed capacity would make sense. This turned out to be more challenging than it first appeared.

All members provided their annual electricity bills. We entered this data into a table along with the estimated annual output of the planned photovoltaic system. Using the table, we created several possible allocation keys to match household consumption levels. However, this approach did not produce the most accurate results, since we did not have detailed daily consumption curves. These vary greatly between households depending on when people are at home and when they use electricity — for example, whether they can run appliances like washing machines during the day or only in the evening after work. Although general consumption profiles can be found online, these are too simplified to create a realistic sharing model. The same applies to solar irradiance calculators, which are more useful for individual households than for a community setting.

At the time of our preparation, we could not find any freely available tool for creating more sophisticated and therefore more useful sharing models. There are programs capable of this, but they are costly and typically used by municipalities or consulting firms that can afford them. This lack of accessible tools represents another barrier for vulnerable communities — the uncertainty about potential benefits and costs may discourage households for whom reducing energy bills is a matter of poverty prevention rather than a mere experiment or investment opportunity.

Eventually, we reached out to the SEMMO (Association of Municipal Energy Managers) for help. Based on interviews with our members and their electricity bills, they developed several sharing models that accounted for different scenarios, such as which member's roof would host the solar panels, whether to invest in a battery for storage, or whether to instead focus on synchronizing consumption with photovoltaic generation to reduce the need for batteries. Our survey showed that within the community we have three technically suitable roofs for installing photovoltaic systems. This represents our maximum theoretical potential, but we decided to proceed gradually and avoid overburdening the community with a large initial investment. We therefore started with the house that has the highest electricity consumption — after all, the cheapest energy is the one used directly at the point of production.

In our case, the total electricity consumption of all households is 30.4 MWh. If we install a photovoltaic system with a capacity of 8.4 kWp and add a 10 kWh battery, we would produce 9.8 MWh, roughly one-third of the total consumption. In the house with the photovoltaic system, we would save 4.2 MWh (out of 7.2 MWh annual consumption for that household). In the other households — where sharing is based on allocation keys — savings would total 1.2 MWh, significantly

PV system with a battery	Building	Consumption		PV power station			Energy savings (MWh)			Simplified economic overview							
		Allocation key [%]	Annual energy consumption [MWh]	PV unit installed capacity [kWp]	Battery capacity [kWh]	Annual production [MWh]	PV savings (direct use) [MWh]	Savings through community sharing [MWh]	Overall savings [MWh]	Investment costs [CZK]	Subsidy [CZK]	Investment costs after subsidy deduction [CZK]	Cost savings through direct use [CZK]	Savings through community sharing [CZK]	Overall savings [CZK]	Annual operation costs [CZK]	Simple payback period [years]
	Address 1	20%	5,3	-	-	-	-	0,3	0,3	-	-	-	-	1 103	1 103	-	-
	Address 2	30%	8,2	-	-	-	-	0,4	0,4	-	-	-	-	1 603	1 603	-	-
	Address 3	0%	7,2	8,4	10	9,8	4,2	-	4,2	384 360	140 000	244 360	31 488	-	31 488	1 800	7,8
	Address 4	10%	2,5	-	-	-	-	0,2	0,2	-	-	-	-	712	712	-	-
	Address 5	10%	2,5	-	-	-	-	0,1	0,1	-	-	-	-	597	597	-	-
	Address 6	10%	2,4	-	-	-	-	0,1	0,1	-	-	-	-	292	292	-	-
	Address 7	10%	1,1	-	-	-	-	0	0	-	-	-	-	182	182	-	-
	Address 8	10%	1,3	-	-	-	-	0,1	0,1	-	-	-	-	433	433	-	-
	All buildings	100%	30,4	8,4	10	9,8	4,2	1,2	5,4	384 360	140 000	244 360	31 488	4 923	36 411	1 800	6,7

Fig. 5: Detailed model proposal: a community with a battery and one photovoltaic production unit for 8 households

less, since their combined consumption is 23.2 MWh. We set the allocation keys so that the household with the highest consumption receives 30%, the second highest 20%, and the others 10% each. Altogether, sharing covers 18% of the total annual consumption. Of the total production of 9.8 MWh, we will use 5.4 MWh, or approximately 55%. In this configuration, and without subsidies, the simple payback period (based on an installation cost of around CZK 384,000) would be 11.1 years. Savings from shared energy vary significantly among households. The one with the production facility saves the most — around CZK 31,000 per year — while low-consumption households save much less, only a few hundred crowns annually. Even with a subsidy, the payback period would remain around seven years.

Visiting good practice projects

As part of our process, we visited existing examples of good practice abroad. Although legislation differs from country to country, seeing a functioning community solar power station with our own eyes and talking to the people who are actively involved helped us better understand what an energy community really is and what its establishment and operation entail. Such visits also provide an opportunity to explore various social dimensions of these initiatives offering valuable inspiration for thinking about how energy communities can include not only the upper middle class but also people from vulnerable groups.

Good practice examples – Lepizig and St. Pölten

Leipzig, Germany

We visited the Leipzig Energy Cooperative project in the town of Taucha,[21] which offers an inspiring example of cooperation between a citizens' initiative and the municipality. The local public swimming pool is powered by electricity from a solar installation that was financed and built by the cooperative. This project represents a form of *public–commons partnership*, a model of mutually beneficial collaboration between local government and civic initiatives.

St. Pölten, Austria

In St. Pölten, we visited the Robin Powerhood initiative which provides free electricity to people in financial straits that is sourced from the surplus production of large photovoltaic installations on company rooftops. This model is particularly inspiring because it shows how people facing financial hardship can reduce their costs thanks to renewable energy, while surplus sharing also benefits both the owners of large installations and the overall capacity of the grid.

In Austria, unlike in Czechia, the electricity distribution fee varies depending on the distance over which the energy is transmitted. This approach makes logical sense: the closer the energy is consumed to its source, the lower the load on the grid. Adopting a similar model in Czechia would significantly support community energy sharing and make participation more advantageous even for households without their own generation facilities. After all, energy communities are currently only temporarily permitted within three nearby municipalities (in former administrative districts).[22]

Second meeting: Voting for shared property

After working with SEMMO to develop a more accurate sharing model, we began planning another meeting to present it to other community members. The figures in the new model differed significantly from those discussed at the first meeting, when we still lacked key information. The most important numbers concern the overall financial return—specifically, the annual savings from shared energy. These figures also form the basis for further communication and for presenting the sharing model to the group.

However, it proved impossible to find a single date that suited everyone. We therefore sent the proposal to all members electronically in advance and then met in person with those who were available. With the rest, we arranged individual meetings or contacted them by phone. Together, we discussed the technical aspects of the investment's payback period and debated the pros and cons of collective ownership of the generation facility.

One major argument against collective ownership is that it currently prevents applicants from receiving subsidies from the New Green Savings programme. Although this is not the only subsidy available (for example, the new KOMUNERG[23]), programme has recently been launched), it remains the most widely used. The New Green Savings funding can only be requested by the property owner, who must also keep the subsidized photovoltaic system for several years without selling it. Another condition is that the applicant must not own more than two residential properties. The programme does not account for the possibility of building a shared energy source for multiple households.

Our arguments in favour of collective ownership were as follows: the person whose roof would host the photovoltaic system could not afford to purchase it alone. We therefore wanted to pool both our own and external resources to finance it together. But how? If the money were borrowed — either through loans from community members or an external lender (see the chapter on *Finance*) — the most straightforward approach would be for the property owner to take out the loan and own the photovoltaic system personally. This arrangement did not seem fair to us, as it would place all financial responsibility on one individual. What if everyone else in the community left, leaving that person alone with the debt? Or what if the owner decided to cancel the sharing arrangement without informing the other households? While such risks could be addressed contractually, the prevailing view was that this could easily lead to lengthy and costly legal disputes with uncertain outcomes.

We also considered alternative ways to raise funds, such as crowdfunding, but again, the owner would be the sole legal beneficiary, leaving the rest of us without any guarantees. This brought us back to one of the key principles expressed by members at the very beginning: no one wanted to lose money or damage relationships. Therefore, one of our most important requirements was that all responsibilities be clear, transparent, and shared. We share the benefits — but also the obligations.

Another point of agreement within the group was our desire to pave the way for other communities by testing replicable models that are not dependent on good will alone. We want to ensure that what we build is genuinely safe and accessible for ordinary people. While there is also the option of transferring energy free of charge to vulnerable households — as the Robin Powerhood initiative does — we decided to focus on exploring how ordinary people can build shared resources together, rather than on charitable giving.[24]

Choosing a legal form: Why we established an association

Since we ultimately decided on collective ownership of the energy generation facility, it was necessary to establish a legal entity that would hold the property and of which the members of the energy community would become part. According to Lex OZE II, the main purpose of establishing and operating energy communities is to provide services to their members and to optimize energy consumption — not primarily to generate profit. However, profit-making activities are not entirely excluded, provided they are consistent with the community's main purpose. After legal consultations, we considered two options: an association or a cooperative. Two factors were decisive in our choice: costs and the level

of administrative burden, both during establishment and subsequent operation.

An association can be established simply by submitting documents to the court, which then enters it into the public register. By law, an association is a non-profit entity — any profits must be used to fulfil its stated purpose, for example, further developing the energy community.

A cooperative, on the other hand, is a more robust structure but also more expensive to establish. It requires a founding meeting with a notary, which costs thousands of CZK. For a new small community, this can be a significant expense that delays the payback period of the investment. A cooperative's main advantage is that it allows members to make capital contributions, but in our case, members' contributions alone would not have been sufficient to cover the full installation cost.

Based on these considerations, we chose an association as the most suitable structure. According to the advice of the lawyers we consulted, an association is sufficient for administering our energy community. It also enables us to conduct fundraising campaigns (for example, through Darujme.cz) and to work with direct loans (see the chapter on *Finance*). Through these sources, we plan to jointly purchase and own a photovoltaic power station.

Foundation meeting

When drafting the association's statutes, we first reviewed the statutes of a similar organization, the Opavsko Local Action Group, which are freely available in the register of associations. After several hours of consultation with a lawyer specializing in energy communities, we adapted these statutes to the specific needs of our group. A number of important decisions were reflected in the document. The most significant was our decision to draft the statutes in line with Lex OZE II, ensuring compliance with the legal framework for energy communities, while also keeping them applicable under the active customer model should we decide to operate that way in the future.

We also introduced two forms of membership: direct and secondary. Direct members have voting rights and actively participate in decision-making processes. Secondary members do not hold voting rights but may attend meetings, ask questions, and otherwise support the community. This category was created to enable people who, for various reasons, do not wish to or cannot participate in energy sharing itself — but who may want to support us through a loan, for instance — to get involved (see the *Finance* chapter for more details).

We also agreed that only one voting member can represent each consumption point in the association. This prevents situations where one household could "outvote" another. It is up to each household to decide internally who will become the voting member. Alternatively, multiple members of the same household may join the association, provided they agree in advance on who will exercise the voting right. In the case of the Vzletný Racek Social Cooperative, which also joined as a member, the organization became part of the association as a legal entity, authorizing one representative to act on its behalf. After the association was officially established, the next step was to open an association bank account.

Once the statutes were finalized, we organized a group meeting. We circulated the draft in advance so that everyone could review it beforehand. During the meeting, we systematically went through

the document and addressed comments point by point. We also invited lawyer Vincenc Bouček, who answered detailed questions about the statutes and the legal framework for energy communities. His presence greatly helped clarify ambiguities, allowed necessary adjustments to be made on the spot, and made it possible to reach a consensus on the final version. The resulting statutes genuinely reflect the views of our members, who clearly understand what they are committing to by joining the association. After their approval, we jointly prepared all the documents required for registration of the association with the court.

For more details on how to establish an association in Czechia, see https://frankbold.org/poradna/spolky--a-zapojeni-verejnosti/spolky/zakladani-spolku/rada/jak-spravne-zalozit-spolek

Community organizing

When supporting the creation of energy communities, we apply community organizing methods — an approach based on long-term cooperation with people, with the goal of engaging even those who might never get involved on their own. This method focuses on building relationships, identifying needs, and creating stable groups capable of taking action and making collective decisions. Instead of one-off events, it systematically strengthens a community's ability to solve its own problems. Where organizing succeeds, groups emerge that are able to negotiate, defend their interests, and initiate new projects ranging from neighbourhood mutual aid to energy communities.[26]

Our work builds on the approaches of Jane McAlevey,[27] who distinguished community organizing from advocacy and mobilization. While these two methods primarily engage those who are already convinced — supporters, donors, or participants in public demonstrations — organizing reaches out to people where they are.[28]

Finance: Initial investment issue

Our group faces one major challenge — we have no available funds. Since traditional subsidy programmes have not proven to be a suitable tool for us, we have explored several alternative options.

Fundraising

One way to raise money for a community energy project is through fundraising, specifically by organizing a public campaign in which people can support an initiative they find meaningful.

Existing platforms such as Darujme.cz or Donio can be used, or you can set up a transparent bank account. Public fundraising can also be complemented by creative forms of support — such as gifts or experiences for contributors, community gatherings, benefit concerts with a tombola, or solidarity dinners. For example, one of our members decided to support the project through a running challenge: he is running a half marathon and asking his community to contribute a small amount for every kilometre he completes.

At the time of writing this publication, we are launching a public fundraising campaign appealing to the wider public for support. All our outputs and materials for energy communities will be available free of charge, and we will also offer our assistance to other groups setting up similar projects.

Direct loans

In addition to membership contributions and fundraising, we also plan to make use of direct loans.

At first glance, this model may seem simple: several people from our wider community lend money to the association, and they are gradually repaid from the savings generated by the electricity produced. However, the legal framework is not that straightforward which is why we sought a formal legal opinion.

Under the Banking Act, even an ordinary loan may be considered a deposit if it involves entrusted money that must be repaid. The law prohibits accepting deposits from the public without a banking license, and violating this rule constitutes an offense punishable by substantial fines. The risk therefore does not stem from the loan itself, but from who provides the money and how many people are involved.

The Czech National Bank (ČNB) has two main criteria. One is about the number of lenders: if more than twenty people provide loans, this is generally regarded as accepting deposits from the public.

The other one applies to the nature of the relationship between the lenders and the borrower — even loans from a smaller number of people can be risky if there is no close, trustworthy relationship that allows oversight of how the association handles the funds. The ČNB interprets this criterion very strictly: even membership in the association or family ties with its statutory representatives may not be sufficient for people to be considered outside "the public."

To mitigate the risk, we have amended the association's statutes and created two types of membership. People wishing to provide direct loans can join as secondary members, allowing them to review the association's activities, ask questions, and monitor the use of funds. This arrangement strengthens the "relationship of trust" that is essential for assessing lega-

lity. We also ensure that the total number of loans remains as low as possible and that accepting loans does not become a systematic activity, which is another factor that can reduce legal risk.

It is important to note that although the Czech National Bank has historically focused on large companies handling CZK tens or hundreds of millions from hundreds of people, the legal provisions apply equally to all entities. Even small associations are not exempt from possible supervision — especially if a complaint is filed.

These measures can reduce legal risks, but they cannot eliminate them entirely. Direct loans remain an area in which caution is required, and it is essential to consult a lawyer before proceeding. For more detailed information, we recommend reviewing the Banking Act.

Energy community as prevention of energy poverty

Focus groups with people at risk of energy poverty in the Ústí nad Labem Region

For many years, the Ústí nad Labem Region has been struggling with accumulated social and economic problems, which often place it at the bottom of national rankings – for example, it has a very high level of destabilizing poverty, very low socioeconomic development, and educational attainment.[25] The region's population has the lowest average level of education in the Czech Republic, an exceptionally high proportion of people are burdened with debt, and unemployment is among the highest in the country. Limited job opportunities, difficult access to quality education, and poor transport infrastructure fundamentally affect the daily lives of many local people. These problems are further exacerbated by the poor availability of affordable energy and the growing number of households experiencing energy poverty.

In order to gain a deeper understanding of how people in Děčín — the town where our energy community is being established and its environs — experience energy poverty, we conducted a series of focus groups with people at risk of high energy costs. The aim was to gain detailed insight into their everyday experiences, strategies, and attitudes toward paying for and using energy in their households.

Methodology

The research involved two groups with a total of seven respondents. It was not a representative sample, but a qualitative survey that provides insight into the specific life situations and experiences of people from different types of housing and income conditions.


ZDROJ
ODBĚRATELÉ

The interviews took place in Děčín in November 2025 and were conducted according to a semi-structured scenario focusing on the following areas:

- How have you perceived rising energy prices in recent years? How has this affected your everyday life?
- When you think about why energy is so expensive, what comes to your mind?
- Do you know of anything that would help you with current energy prices?
- Presentation of the community energy model to participants. Can you imagine joining a similar project? Alternatively, what would have to change?
- Is there anything else you would like to add to the questions we discussed today?

We decided to divide the following findings into several groups that reflect the main topics that were repeated in our focus groups:

General inflation

Respondents typically describe the impacts of the energy crisis in terms of overall inflation, not just a rapid rise in energy prices. They feel a gradual increase in the prices of everything — rent, food, kindergarten fees, etc. Energy is therefore not seen as a single major problem whose solution would improve their living situation, but as one of many items with constantly rising price. However, along with rent, they consider it to be something on which it is not possible to save much. It is viewed as a fixed monthly expense that must be paid; failure to do so results in debt.

> *„It's not that people can't afford it, we have to afford it, it's a basic expense. Rent, heat, and electricity, you just pay for it and pay even more if you have to, but you take this money away from everything else. We don't go on trips, except for walks in the forest. You can't afford a vacation... You always have to adjust to the rest of the budget because you always have to pay for it,"* a respondent describes various forms of savings.

Most respondents felt the increase in energy prices through supplementary payments and arrears at the end of 2022. They responded by tightening control over their spending and reducing energy consumption. However, they describe the situation in the context of overall austerity in all areas. For example, in cooking, and thus in the quality of food purchased, or in the form of leisure activities. They also say they already practiced a number of energy-saving measures — for example energy-saving light bulbs and heating less or only in one room. They see no further simple measures available to them. At the same time, they add that in an old flat/house with children or pets, they cannot completely stop heating, and therefore significantly reduce their expenses elsewhere.

Deposits

The energy crisis has affected respondents' lives primarily through energy arrears and sharp increases in advance payments. Advance payments often doubled compared to previous amounts, and unexpected energy arrears commonly ranged from several thousand CZK to, in exceptional cases, tens of thousands. However, respondents add that, unfor-

tunately, there was no sudden reduction after the end of the crisis. The financial burden was felt most by people whose high advance payments began in the autumn and who were therefore unable to save from their advance payments during the summer months, when they consume less, for example due to a change of supplier. In addition, respondents describe saving during the winter as particularly unpleasant, since they spend more time at home, it gets dark earlier, and energy consumption increases, even if they significantly reduce their heating.

Because of these experiences, many respondents now prefer to pay higher monthly advances to avoid future underpayments. They would rather have an overpayment as a form of security — or as a kind of small, enforced "savings." Advance payments thus appeared to respondents as one of the few aspects of the energy system they can actually influence. Several participants described how they regularly review and adjust their monthly advances. Even CZK 500 per month, which could be redirected to other household expenses, represents meaningful support for their budget — but at the same time, it can become a major source of stress in the event of arrears. Another major issue mentioned by respondents concerns payment schedules, which, they say, are not available with all suppliers. Once they are unable to pay the full amount, their debt is automatically transferred into a receivable. Some perceive suppliers' behaviour as unfair or even deceptive.

One respondent, for instance, described a situation where — despite agreeing on a payment plan that included both advances and instalments — she was required to pay the entire amount in instalments, which resulted in a new debt she was unaware of:

„They gave me a payment schedule, so I said, okay, I'll pay it off. (...) So I paid 5,000 CZK in advance, plus another 3,000 for the old electricity bill I owed. But they put the whole 8,000 towards my old debt. (...) I didn't know that — it was my grandson who found out after receiving a letter saying I hadn't paid for three months. I said, 'But that's not what we agreed!' She told me it was her colleague's fault, and because of that, they disconnected my electricity," one of the respondents explained.

Respondents also reported experiencing non-transparent pricing from suppliers which put them in difficult financial situations. They spoke of hidden fees and taxes not visible at first glance, and described cases where, despite paying regular advances, they later discovered accumulated debt. They noted that these situations disproportionately affect older people, who are often offered disadvantageous contracts or add-on services over the phone. Without access to or familiarity with the internet, they are unable to verify the information or compare offers.

Rental housing

People living in rental housing expressed a strong sense of powerlessness. They felt they had no control over their energy situation, and their only strategy was to reduce consumption.

If they owned their homes, they would consider investing in improved technologies—such as a new boiler, solar water heating, or insulation measures and new windows supported by subsidy programs. However, when the landlord fails to make such upgrades, tenants are reluctant to invest their own money in property they do not own, since they cannot count on a return on long-term investments.

As tenants, they feel limited to saving and adapting, while the idea of a landlord voluntarily investing in renovations — without external pressure from the state or municipality — seems unrealistic. On the contrary, even minor problems, such as a broken thermostat or mould, often remain unresolved, leaving tenants to deal with the consequences themselves. They also feel trapped by the inability to move, as high deposits and real estate agency fees make relocation expensive and weaken their bargaining position. Moving is often presented by authorities as the main solution to housing problems:

> *„I had a problem because I couldn't afford the deposit. That's 8000 CZK for the agency and 30,000 deposit for three months' rent upfront. I didn't have extra 30,000 or 40,000 to move and pay rent and utilities right away,"* a respondent said explaining why she remains in her current unsuitable flat.

Moving also brings other difficulties — loss of social ties, disruption of support networks, and increased commuting costs. Families who move out of town often face poor public transport connections, forcing them to use a car, which adds yet another major expense for travel to work or school.

Technical aspects

Respondents often repeated that they "simply don't understand technology." They cited the vast number of combinations of heating and electricity systems as a major barrier to understanding.

Because of this complexity — and the high upfront costs — they do not consider changing technologies, particularly if they live in rented housing. Instead, they look for ways to heat their homes or water as efficiently as possible using the systems they already have, often by trial and error. Once they find a working approach, they tend to stick with it and avoid experimentation.

The diversity of energy systems leaves them feeling uncertain and anxious, fearing that a wrong decision might increase their costs. If they were to make a change, the preferred option often mentioned was a switch to solid fuels, especially wood, which they perceive as familiar, tangible, and a step toward greater self-sufficiency and independence.

They also asked practical questions about cost efficiency: for example, whether it saves money to leave lights on rather than constantly switching them off, or whether a combined boiler for heating and hot water actually saves energy or just lets the water cool down unnecessarily.

Serial problems

All respondents said they had reduced their consumption as prices increased. However, they emphasized that saving is far more difficult for families with children:

> *„With kids, to be honest, you can't really save much on heating. It's always: get dressed, put on your shoes, don't walk barefoot, why did you take your clothes off again? And then they get sick — and then it's one thing after another, because you can't go to work, you must stay at home, and you're just screwed,"* one respondent shared.

Due to high prices, families limit activities with their children, cut back on food quality, clothing, vacations, and even small social activities such as attending city events. Although such events are often free, parents say it is difficult to attend without small purchases or treats for child-

ren, so they often avoid them altogether, which gradually leads to social isolation

Another respondent, living alone on a disability pension, described how social service workers advised her to move in with relatives due to unpaid electricity bills. She refuses, not wanting to burden her family or lose her independence. They live in a small flat, and if she moved in, she'd lose her financial support completely as the benefits would be recalculated for the whole household. And once that happens, it would be almost impossible to live independently again.

Respondents said social services often advised finding another job or part-time work — even for older or ill people, despite the lack of jobs in the region. They agreed that such situations, where vulnerable people risk having their electricity disconnected, should not occur at all, and that the state should protect them.

„At the Employment Office, they told me that anyone who wants to work can find a job. But where? There aren't any here. 'Then move,' they said — 'maybe you'll find a job somewhere else.' So I'm supposed to move somewhere I don't know, where I don't even know where I'll sleep? You need a lot of money just to find a new place to live," said a pensioner, describing her experience when she applied for emergency financial aid due to energy arrears.

Stories of members of the SK Žárovka Energy Community in Děčín

Can community energy be a solution for mothers living in energy poverty?

Life with a small child, in an old, uninsulated house, during an energy crisis and a time of unaffordable housing, is challenging.

At first, the house was heated with gas, but we couldn't afford the gas bills. Today, we have a wood-fired boiler, but given the price of wood and the amount of heat lost through the old windows, it's still very difficult to keep the house warm. You can probably imagine a small child constantly crawling on a cold floor, and my fear that he'll catch a cold. This leads to an endless, almost predetermined battle of putting on socks that slip off his little feet again and again.

Everyday life in energy poverty is full of compromises. The most exhausting part is thinking about those compromises — thinking about how many logs to throw into the boiler so it lasts until morning, but not so many that we waste them. Thinking about whether to ventilate the room without losing too much heat.

Of course, the best solution would be to insulate the house, but that's a big expense for us right now, and we're renovating gradually. I just wish my son could grow up in a home where warmth isn't a luxury, but something taken for granted.

What's difficult today is that there's no certainty about what energy prices will be tomorrow or next year. People have probably said this in every era, but during COVID it became clearer than ever how quickly everything can change. At a time when far-right parties are coming to power, I've lost much of my faith in stability and predictability.

In my life, I've learned to rely mostly on myself and on a close network of friends and acquaintances who share my values. That's why I believe that community energy offers the kind of certainty we need in these uncertain times. Producing our own electricity and sharing the surplus makes perfect sense. What's more, this idea is replicable. And I truly believe that many mothers in much tougher situations than mine, especially single mothers, would appreciate being part of an energy cooperative like SK Žárovka Děčín.

Perception of expensive energy

Focus group participants generally did not identify a single clear culprit for the current high energy prices. They referred to information from the media and most often cited the Russian invasion to Ukraine and general inflation as the main causes.

The responses reveal a high degree of uncertainty among participants. They described the situation as a complex problem beyond their control. Many were unfamiliar with how energy prices are structured — how the final amount is calculated, who determines it, and what the relationship is between production costs, distribution fees, and the final bill. As a result, they were unsure what a "fair" price would be and felt that prices were entirely outside their influence. However, there was a clear consensus that energy costs are unaffordable and unpredictable.

Although Czech media often carry criticism of the EU's decarbonization policies, and political parties used opposition to climate measures as part of their electoral campaigns, respondents in the focus groups did not spontaneously mention the EU or climate policy as central causes of the energy crisis. This does not necessarily mean such narratives do not resonate with them, but rather that people see them as distant or disconnected from their everyday problems.

Similarly, respondents did not initially attribute responsibility to large energy companies, but this changed when the topic of recent record profits came up. At that point, participants reacted spontaneously — "That's really crazy!" — revealing a strong sense of inequality and unfair distribution of profits, even if they lacked detailed knowledge of how the energy market functions.

Some participants also mentioned insufficient price regulation and the weak role of the state, comparing the situation unfavourably with their relatives' experiences abroad in countries such as the UK or Denmark, where, according to them, the governments had introduced direct price caps or more targeted household support.

The issue of energy reselling between producers and suppliers was also raised repeatedly, seen as an unnecessary

intermediary step that increases prices without adding value.

Overall, people perceive high energy prices as the result of a combination of external crises, market mechanisms, and insufficient political oversight. They also expressed a strong lack of clear and trustworthy information about how the energy system and its pricing actually work.

Where do people look for help?

Respondents generally do not believe that their city or the state can help them, although many think it should be their role. Instead, they rely on close relationships, whether family or friends, for practical support (for example, a grandson helps with meter readings or payments). However, these helpers are often themselves at risk of energy poverty, making mutual assistance insufficient. As several said, "no one has money." They described a breakdown of communities and neighbourhood ties, accompanied by a lack of mutual trust and solidarity.

Distrust of institutional support (such as social services) stems from previous bad experiences. Respondents mentioned cases where social services employees "looked up answers on Google just like us" and were unable to provide specific information about energy-related assistance. Some respondents were even denied financial support from the Labour Office despite being eligible, with their situation only resolved after a social worker accompanied them in person.

People thus do not know where to turn for help. They reacted sceptically to the idea of energy advisors, assuming it would end up like other failed services. However, they agreed that if someone they personally trusted came to their home, showed them how to manage consumption, and helped them communicate with suppliers, it would be extremely useful. In short, respondents see potential in such services but doubt that they could operate at sufficient capacity.

A major concern for all participants was the new "Superdávka" (unified welfare benefit) which they described as a destructive tool that fails to reflect the real costs of living and housing. Older respondents also worried about digitization, as many struggle with smartphones and are unsure whether it will remain possible to apply in person. They pointed out that some citizens with only basic education or no smartphones may find it even more demanding. There are concerns that digital barriers would prevent the most vulnerable from receiving support.

How to deal with energy poverty?

Focus group participants said they do not see any way to actively improve their situation and often feel overwhelmed and stressed. As mentioned earlier, people in rented housing in particular reported a strong sense of helplessness.

When asked what would help them, most could not give a specific answer. They simply said that it would help if energy were "just cheaper," or if wages increased in line with prices. Many said they would like to "live normally" — in a reasonably priced, well-maintained home. Overall, they long for stability, predictability, and security.

Another frequently mentioned solution was state intervention, whether through rent or energy price regulation. Respondents in private rental housing felt that "it's all about profit" and that landlords

never invest in their properties. They viewed municipal housing with regulated rents as a possible solution but added that such flats are rarely available and there are far too few of them. Interestingly, participants perceived ownership and regulation problems more acutely in housing than in energy.

Responses to the community energy model

We explained the community energy model to our respondents using the example of the Děčín energy cooperative that we are establishing. Although in this particular case the savings from participating in electricity sharing amount to only a few hundred CZK per year for households with low energy consumption (see the chapter *How did we do it?*), the overall response to the model was mostly positive. Respondents were particularly attracted to it because of the greater independence from large energy companies and thus from unexpected price fluctuations, its environmental benefits, long-term savings, and stable energy prices. They saw the model as offering greater security and less stress about the future.

Participants mentioned the complexity of the energy system — both in general and specifically in relation to community energy — and the various loopholes and mechanisms that they would need to understand. For them to want to and be able to participate, they said they would need maximum transparency about how the system works, clear information about payment amounts and dates, how savings are calculated, who is responsible for what, and assurance that there would be no hidden costs. They identified clear and comprehensible information as one of the main conditions for participation. They also found simple visual explanations very helpful. Since they had never heard of community energy before and did not know anyone personally involved in it, they said it would be very useful to visit a household with similar experience or circumstances and hear the personal story of someone they could identify with, in order to get a better idea of energy savings and the practical aspects of joining a sharing group.

They also stated that to get involved, the process would need to be understandable and safe, and they would need to be confident that it was not a scam and that someone would ideally guide them through it. They saw the position of an energy advisor — someone who could lead the group through the process and explain the procedures — as a good solution.

At the same time, however, they were reluctant to use such a service because they had had bad experiences with social services, for example, where they were unable to find the support they needed (see the chapter *Where do people look for help?*). Community energy can therefore resonate with people, but it must be extremely clear, visual, low-threshold, and explained by someone they trust. There was also a positive response to the community aspect of community energy itself. People mentioned the breakdown of communities and the importance of rebuilding them — and they saw cooperation between neighbours or friends as a step toward restoring these relationships.

At the same time, however, there are a number of barriers that discourage them: high initial investment, technical concerns, fear of complexity or hidden fees, and uncertainty about possible additional arrears. They also mentioned concerns related to rental housing. They doubted whether the owner would allow them to

make the necessary changes to the metering system or, in the case of a block of flats, whether other owners and landlords would cooperate and permit the modifications (and this refers only to replacing the metering system, not to installing photovoltaics on the building). They were also worried that in case they would have to move, it would mean repeating the entire negotiation process. Some were concerned about having to adjust the time when they consume electricity to the time when it is produced (i.e., mainly during the day in the case of photovoltaics). On the other hand, the elderly and young families saw this as an advantage.

In terms of financial savings, respondents considered every crown saved to be valuable. Therefore, even the prospect of relatively small savings from community energy did not discourage them from participating. However, they also mentioned concerns about the time commitment required to prepare such a project. They considered about 20 hours as acceptable time they would be willing to devote to setting up the project. Nevertheless, they repeated that it was essential for someone knowledgeable about energy and energy communities to be involved in the process and to lead it.

Overall summary

- Energy poverty is a combination of high energy prices, expensive rental housing, and the complexity and opacity of the energy system.
- Tenants tend to feel completely powerless — they cannot change anything, only try to save.
- Most respondents live month to month, with no savings that could be used for arrears, deposits, or other investments.
- Community energy appeals to respondents but it must be extremely simple, transparent, and guided by a trusted person.
- The main barriers are insecure housing, lack of funds, fear of complexity, mistrust, and bad experiences with institutions.

Conclusion and recommendations

Our work shows that community energy can be an important way to strengthen local energy self-sufficiency and prosperity, as well as to develop local social ties. At the same time, our experience also points to fundamental limitations in the current system that prevent community energy from reaching its full potential. These are primarily barriers that exclude people outside economically privileged groups from participating in such projects. Although community energy is sometimes presented by its proponents as "beneficial for all," practice shows that without structural changes, it may remain inaccessible to those who need it most.

In conclusion, we would therefore like to formulate several recommendations that can help overcome these problems:

Involve community organizing

Our experience shows that it is mainly privileged groups who engage in community energy on their own. If we want to involve wider society, it is necessary to work systematically with communities using proven **methods of community organizing**. This means working with people over the long term — mapping their problems, understanding why certain energy solutions do or do not work for them, and actively involving them in developing joint solutions. Community organizing provides a framework for understanding how social factors — such as housing insecurity, distrust of institutions, or previous negative experiences — affect people's willingness to participate in community energy projects. Among other things, this approach also helps explain why some members of the public are reserved or even hostile toward "green" policies. It often turns out that this is not a rejection of environmental measures as such, but a reaction to their impact on people's everyday lives — where they represent an additional burden or remain inaccessible. **Community organizing is therefore not only a way to create new projects but also a tool for understanding the barriers that stand between people and available solutions.**

Reflect practice in improving legislative and subsidy conditions

Our experience shows that the potential of community energy to improve social conditions faces numerous legal and financial obstacles. There is a lack of **analysis of which changes to the legal framework, financial instruments, and incentives are necessary for community energy to better fulfil its social functions** and reflect the needs of vulnerable groups such as tenants or households without savings. Especially since community energy is still in its infancy, it is essential to systematically evaluate practical experience with different operating models — such as ours — and, based on this, **formulate recommendations that will lead to a more inclusive system. For example, subsidies for photovoltaics could be adjusted to make them accessible to community projects led by people who do not own property themselves.**

Think about savings, think about non-owners

Community energy in its most common form — sharing electricity from rooftop

photovoltaics — brings savings only when combined with other investments, such as insulation, window replacement, or heating modernization. Both practice and research have long shown that it is **precisely those at risk of energy poverty who face the greatest barriers to accessing energy-saving measures and subsidies**: they have no savings and live in poor-quality or rented housing. Without a comprehensive housing policy, effective support for energy efficiency, and targeted programs for rental housing, community energy on its own cannot be expected to address the structural conditions that create and perpetuate energy poverty. It is also crucial to **systematically seek ways to make energy sharing beneficial not only for owners of photovoltaic installations but also for tenants and other groups without property. One possible approach is to adjust subsidies so that they also support community projects based on joint ownership.**

Promote local energy sharing

Although our experience shows that the existing legal framework makes it possible for groups like ours to create a functional sharing model, some adjustments could make it more effective. In particular, changes to distribution fees are needed — such as discounts for sharing within a neighbourhood or municipality — that would reflect the lower load on the distribution network resulting from local consumption. At the same time, regulatory stability must be ensured so that households and communities producing their own energy are not disadvantaged in the future by increases in distribution tariffs. **Only if energy communities are provided with stable and predictable conditions that recognize their contribution to society can community energy truly fulfil its social potential.**

Unblock community and ethical forms of financing

As we have found, besides unsuitable subsidy schemes, community project financing in Czechia is further **complicated by restrictive legislation governing capital sharing**. The current interpretation of the Banking Act makes it impossible to openly raise initial capital through community loans, even though this mechanism — common abroad — would be the most natural for joint projects. In practice, this means that households experiencing energy poverty — those who most need stable and affordable energy — ironically find it even harder to obtain, as they cannot receive support from others through community-based financing. **Unblocking and developing community or ethical financing[29] mechanisms could make community energy far more accessible.**

Include community energy in broader local economic strategies

Our experience shows that, particularly in peripheral areas, **community energy faces a number of social barriers that it cannot overcome on its own.** It is most likely to bring real social benefits if it becomes part of a broader strategy to strengthen households' economic security, stabilize incomes, and reduce the cost of living. **It is therefore advisable to develop community energy in parallel and in synergy with other community or solidarity-based economic[30] projects — for example in the fields of affordable housing, local food production, manufacturing, or social cooperatives — ideally with public support at regional and municipal levels.**

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Re-set: Platform for Socio-Ecological Transformation is a Czech organization that uses research, education, and public engagement to support efforts for a more sustainable and just society. We develop and popularize concepts for a social, ecological and democratic economy, we investigate causes of social and ecological problems, and we look for solutions. We support bottom-up initiatives and work with social movements that strive for a good life for all in diverse fields. We help people get organized and promote their interests together.

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Graphic design and typesetting: Mikuláš Rýže

Photographs: Re-set archives

The handbook *Community Energy for All: The Story of Building an Energy Community in Czechia's Ústí nad Labem Region* was published by Re-set: Platform for Socio-Ecological Transformation in December 2025.

First edition.

ISBN: 978-80-88537-01-4

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Funded by the European Union.

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Co-funded by
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