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CoopTech Hub

Energy Communities and the Legacy of Post-Socialism

Bartłomiej Kupiec, Julia Potrzebowska, Ervin Kaçiu

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CONNECTING THE PAST AND FUTURE OF ENERGY COMMUNITIES IN POST-SOCIALIST EUROPE

PREFACE FROM JOANNA MARIA STOLAREK
DIRECTOR OF THE HEINRICH BÖLL FOUNDATION WARSAW

The energy and climate crisis is real, and large fossil fuel corporations continue to dictate the rules of the game. Global warming and Russian aggression against Ukraine have accelerated the search for safe, affordable, and green energy solutions for all. One promising option is energy generated by energy communities. In post-communist countries, however, cooperatives have historically carried a negative connotation. The notion that energy must be supplied by large governments or fossil fuel companies has fostered the perception that energy prices are beyond our control. Electricity is often taken for granted as an immutable fact of life. This, however, is a misconception perpetuated by the fuel market.

From the left: Kyriaki Metaxa (hbs Thessaloniki), Tibor Moldvai (hbs Belgrade), Tea Zeqaj (hbs Tirana), Klára Pleskačová (hbs Prague), Beata Cymerman (hbs Warsaw), Jasminka Bjelavac (hbs Sarajevo), Adéla Jurečková (hbs Prague), Damir Zeković (hbs Sarajevo)

The following report, *"Energy Communities and the Legacy of Post-Socialism"*, was written by hbs Warsaw in collaboration with CoopTech Hub, with support from the hbs offices in Prague, Tirana, Thessaloniki, Belgrade, and Sarajevo. It presents a collection of interviews conducted with participants of the European Energy Communities Forum, organised by Rescoop and Unie komunitní energetiky, held in Prague from 13 to 15 May. Last year, we attended a similar conference in Athens during the Community Energy Spring Gathering, which also provided valuable insights into this growing movement. This year's forum includes interviews with representatives from Central and Eastern Europe and the Balkans, including Poland, the Czech Republic, Hungary, Ukraine, Latvia, Bulgaria, Slovenia, and Serbia. We decided to explore a subject that has preoccupied us for a long time but has rarely been analysed in such depth: the complex relationship between the communist legacy and approaches to energy communities or cooperatives in general. We collaborated with leading experts in the field to examine this issue comprehensively.

I hope this report not only deepens your understanding but also inspires you to envision an energy system that is green, sustainable, and democratic.

Joanna Maria Stolarek
Director of the Heinrich Böll Foundation Warsaw

HARNESSING THE POWER OF COOPERATION: LESSONS FROM EUROPE'S ENERGY CRISES AND THE RISE OF ENERGY COMMUNITIES

PREFACE BY DIRK VANSINTJAN
PRESIDENT OF RESCOOP.EU

In March 2023, I was given the opportunity to hold a TEDx talk in Prague at a time when the worst of the energy price crisis caused by the uncertainty about the availability of gas in Europe had passed. The uncertainty caused by the war that Putin waged on Ukraine.

During this crisis, it became apparent that Europe is very much dependent on countries with regimes that most Europeans would rather not have in their own

country for its energy provision. The European Union and its member states took action to find alternative suppliers other than Russia for gas and oil, but what stayed under the radar is that a lot of the uranium used in nuclear power plants in Europe also comes from Russia. Nevertheless, some European countries think that new nuclear power plants will make us less dependent on other countries.

Other European countries learned another lesson from what is happening in Ukraine: they saw how vulnerable large energy facilities are, whether they are nuclear-, gas- or oil-powered. A decentralised energy system is less vulnerable than the centralised one we have now. In my TEDx talk, I demonstrated how every energy crisis since the end of the 19th century has compelled people to sit down, discuss, decide and act together in a cooperative to tackle the problem they faced. Indeed, when the electrification of Europe began, rural, sparsely populated areas were left behind, and in Germany, for example, this led to the creation of more than 6,000 electricity distribution cooperatives. Only 40 of them survived centralisation under Nazism, communism, and neoliberalism.

Most of the new energy cooperatives, or energy communities as we now call them, were created after the oil crises in the 1970s and the nuclear accidents at Three Mile Island (USA), Chernobyl (former Soviet Union) and Fukushima (Japan). Most of them are in Northwestern Europe. The further south you go, the fewer there are – there are only a handful in the Eastern European countries and the Balkans.

In this publication featuring interviews with attendees of the European Energy Community Forum that REScoop.eu co-organised with UKEN this May in Prague, the authors zoom in on how the Soviet communist legacy has hindered the growth of energy communities thus far in the former Soviet communist countries, and what is being done to overcome this.

But there is very good news here: we all have a co-operator within us!

Dirk Vansintjan
President of REScoop.eu

CAN WE GET TOGETHER? MISTRUST IN FORMERLY SOVIET COMMUNIST COUNTRIES[1]

ERVIN KAÇIU

Introduction

There is a question commonly raised everywhere as a concern, but particularly in two environments which I have had the opportunity to frequent more often, because of my engagement as a researcher and lecturer in Albania (a post-communist country), in university auditoriums, as well as in organisations and groups of civil society activists, and it is this: why do we find it so difficult to get together?

As we know, the energy democracy movement has at its core the bringing together and engaging of people who share a common vision for their energy future, including the way forward to meeting their energy needs. As people are energy communities' greatest asset, establishing a dedicated founding group and investing in building trust among European Community members and the wider community as well as key stakeholders have proven to be defining factors in terms of their viability.

Therefore, in this report based on the workshop presentation, I have posed the fundamental question of whether it is possible for us to get together and engage, by analysing certain common structural conditions in some of the formerly Soviet communist countries, while also being aware of their cultural, political, and economic differences. In the case of Albania, I draw upon my years of research as a scholar and my involvement with civil society, while in other cases, I refer to studies on this issue as well as literature in anthropology, sociology, and political science regarding this phenomenon.

1 This is a report based on a presentation held in the European Energy Communities Forum 13–15 May 2024, Prague.

When considering the complexity of the phenomenon and the nature of this report, it is important to emphasise that the analysis will focus only on a few key elements that we find significant and it does not aim to provide an exhaustive discussion on the issue.

Can we get together?

The anthropologist Stephen Gudeman (2001) argues that: "The common is a sharing of interests or values, and what happens with the common is not just a physical/material outcome but a social event".

In order for this social event to come to life or in other terms – the prerequisite for collaboration, not only in the case of energy communities but in general for accessing, preserving, or improving humanity's common resources – is social cohesion, the "glue" force, of which is trust. There are many social, political, economic, and cultural factors that influence people's inclination to get together and to engage on collective actions to varying degrees over time and space.

In this report, we will isolate the lack of social trust as one of the most important factors due to its inherent significance and specific weight in formerly Soviet communist countries (as we will see later on). We had the opportunity to study the Albanian case regarding this issue extensively, but on the other hand, referring to various research, both quantitative and qualitative in nature, as well as various scholars, it appears that, in general, societies in formerly Soviet communist countries exhibit a high level of social trust deficit.

The lack of social trust – some quantitative data

Let's consider some statistics, referring to findings from the 2012 European Social Survey. We focus on 2012 because almost all European countries participated in the survey, though even in the latest survey, the results for some of the participating countries have not changed.

The first group consists of only Scandinavian countries (Denmark, Finland, Iceland, Norway, and Sweden), all of which have a trust score above 6 points out of 10. The second group consists of countries with an average trust level between 5 and 6 points – Belgium, Estonia, France, Germany, Ireland, Israel, Lithuania, the Netherlands, Spain, Switzerland, and the UK. With the exception of Estonia, Israel and Lithuania, as we know, all these countries belong to Western Europe and are highly developed. The third group consists of countries where the average social trust level is below 5 – Albania, Bulgaria, the Czech Republic, Cyprus, Hungary, Italy, Kosovo, Poland, Portugal, Russia, Slovakia, Slovenia, and Ukraine. All these countries, apart from Cyprus, Italy, and Portugal, belong to Eastern Europe.

Country	Abbreviation	N	Social Trust Index M (SD)	Cronbach's alpha	Value Similarity Measure M (SD)
Albania	AL	969	3.83 (2.11)	.52	0.41 (0.24)
Belgium	BE	1,806	5.17 (1.61)	.71	0.47 (0.23)
Bulgaria	BG	2,063	3.62 (1.98)	.78	0.49 (0.28)
Cyprus	CZ	1,064	3.70 (1.93)	.77	0.55 (0.24)
Czech Republic	CY	1,842	4.69 (2.04)	.84	0.35 (0.33)
Denmark	DK	1,600	6.83 (1.47)	.73	0.46 (0.22)
Estonia	EE	2,281	5.42 (1.78)	.72	0.50 (0.26)
Finland	FI	2,136	6.42 (1.46)	.73	0.53 (0.23)
France	FR	1,929	5.00 (1.59)	.65	0.54 (0.22)
Germany	DE	2,901	5.36 (1.62)	.69	0.53 (0.20)
Hungary	HU	1,904	4.90 (1.93)	.81	0.41 (0.27)
Iceland	IS	730	6.34 (1.53)	.68	0.55 (0.20)
Ireland	IE	2,484	5.62 (1.88)	.77	0.45 (0.28)
Israel	IL	2,216	5.28 (1.84)	.69	0.33 (0.29)
Italy	IT	845	4.60 (1.90)	.73	0.49 (0.25)
Kosovo	XK	979	4.18 (2.07)	.67	0.48 (0.26)
Lithuania	LT	1,956	5.18 (1.80)	.79	0.35 (0.30)
Netherlands	NL	1,785	5.98 (1.46)	.72	0.48 (0.23)
Norway	NO	1,594	6.58 (1.40)	.71	0.47 (0.21)
Poland	PL	1,767	4.29 (1.81)	.65	0.50 (0.28)
Portugal	PT	2,042	4.02 (1.82)	.76	0.45 (0.26)
Russian Federation	RU	2,253	4.69 (2.03)	.70	0.34 (0.32)
Slovakia	SK	1,761	4.02 (1.98)	.82	0.41 (0.36)
Slovenia	SI	1,152	4.95 (1.96)	.75	0.49 (0.24)
Spain	ES	1,809	5.10 (1.69)	.69	0.56 (0.23)
Sweden	SE	1,793	6.17 (1.58)	.73	0.51 (0.22)
Switzerland	CH	1,448	5.94 (1.56)	.68	0.51 (0.20)
Ukraine	UA	1,984	4.50 (2.22)	.85	0.34 (0.33)
United Kingdom	GB	2,182	5.65 (1.57)	.72	0.47 (0.25)
All Groups		51,308	5.14 (1.97)	.78	0.46 (0.27)

Table 1: Sample size and Descriptive Statistics of Social Trust Index and Value Similarity Measure[1]

Not only the European Social Survey but also the World Values Survey, and similar studies in former Soviet communist countries (with minimal differences among

1 "Social Trust and Value Similarity: the Relationship between Social Trust and Human Values in Europe". Beilmann, M. Lilleoja, L. December 2015, Studies of Transition States and Societies 7(2):19–30

them) have shown the lowest levels of social trust in Europe. The same categories appear not only in the relationships among citizens but above all in relation to the level of trust towards public institutions, the political class and even civil society organisations. It is necessary to emphasise that many scholars in the field have also long noted that compared to Western countries, formerly Soviet communist countries exhibit a low level of trust among individuals and between them and the state. (Letki & Evans, 2005, 522); (Rose & Shin, 2001); (Lagerspetz, 2009). As a result, the level of civic engagement, that is, getting together for common causes and actions, is very low in Eastern European countries (Fuchs & Klingerman, 2006).

Thus, horizontal, and vertical trust should be seen as key factors with a fundamental influence on the inclination to be together and constitute an important lens through which we can understand the willingness and ability to act collectively around common goals, private interests, and public matters such energy communities.

Mistrust as a legacy of socialism

Firstly, the lack of trust should be read as a legacy of socialism. The thesis elaborated by the culturalist approach is that present phenomena can be understood by uncovering the roots of the past. This approach emphasises the importance of the Soviet communist legacy in shaping citizens' attitudes and behaviour because, according to this perspective, an individual's political predisposition is also influenced by the culture in which they are immersed (Sztompka, 1995; Inglehart 2006; Pop-Elches, Tucker, J.A., 2013). The values and habits of an individual can be seen as resistant to change and as a result of socialization at an early age, particularly (Sztompka, 2003), "One of the most serious consequences of the 'block culture' was the spread of erosion of trust. The cultural code inherited from communism was the antagonism between two spheres of life – the private versus the public or society versus authorities" (Sztompka, 2003, 153).

The matrix of mistrust during post-socialism, combining vertical and horizontal trust

On the other hand, it is necessary to distinguish the constituent components of distrust in post-socialism, such as:

- Deep-rooted disillusionment during the post-socialist era due to corruption and abuse of political power.
- Lack of trust in the government, the political class, and as a consequence, in capitalism and democracy.
- Lack of trust in the potential effects of collective commitment to the common good.
- Lack of trust in fellow citizens.
- Lack of trust that engagement in common endeavours can change the reality.

This all leads to a devaluation of the concept of the common good per se.

Uslaner (2002) asserts that: "When people feel that their government is treating them unfairly, they will simultaneously believe that their fellow citizens are untrustworthy." Anthropologists Giordano and Kostova (2002, 2013) state that mistrust is used as a reasonable strategy to detach and thus cope with the daily difficulties of post-socialism. Caught in the whirlwind of mistrust, the most rational behaviour for the individual is to find the safest path. As a result, (Tilly & Gambetta 2006) claim that it is inevitable for individuals to consider being part of a highly personalised (private) network that guarantees much more reliable, effective protection, and therefore more rational support than reliance on the state or others outside this closed social network.

There's no room for fatalism!

However, I believe that there is no place for fatalism because the perception of others as being untrustworthy in particular transcends even personal experiences. In practice, despite the challenges, there are far more cases than perceived where people have engaged in collective actions.

Let's look at some positive examples from Albania, with certainty that there are plenty of successful cases of collective action everywhere in post-communist countries. Below, only a few cases are presented to illustrate this, which have been closely observed as part of a two-year field research study on Albanian villages by the Institute of Anthropology in Tirana.

- The fishery cooperative in Zogaj – Shkodra, Albania. This is a cooperative established in the early 1990s despite the scepticism of the majority of the community's residents that this model could work, considering the failure of this model with the fall of socialism and the lack of trust among each other. Despite the revenues that may be generated from this economic activity, the cooperative continues to function. If you were to ask people whether they trust each other, the majority would say that they did not, yet in practice, they have managed to create a structure that operates based on reciprocal trust.
- The joint management of water for irrigation – Kozare, Albania. As a consequence of the destruction of the irrigation infrastructure by 2020 and the lack of governmental measures for their rehabilitation, the majority of farmers in the village had individually resolved the irrigation of their lands. Each of them invested in pumps and pipes that were inserted into the common reservoir. Convinced that the most efficient way forward would be the creation of a common infrastructure, some of them joined forces despite a lack of trust. Not only did they succeed, but as a result of their success (as I have been told during my field research), they confirmed that other neighbouring villages have also expressed an interest in joining this common management scheme.

- Some cases of community organisation against hydroelectric power plants. In brief, in almost every area in Albania where a hydroelectric power plant is planned, community members have organised resistance against their construction.

Why do these experiences and similar experiences work?

In an effort to provide a summarised response, as a reflection on these and similar cases, I think that due to a specific set of circumstances, they have overcome the general defeatism stemming from a culture of mistrust. Initially, they were very sceptical but learnt to trust to each other during the process. Over time, they managed to develop a sustainable practice and protocol in regulating collaboration and the management of the relationship between the municipality and the local community. The state has not intervened in any stage of the process.

Sunny Schools Initiative/Energy poverty and affordable housing

I am referring to these initiatives because I have had the opportunity to be directly involved in and closely observe communities and the process of democratising energy. In these projects supported by Open Society Foundations Western Balkans (OSFWB), I have been engaged as a researcher and consultant at the same time to design a strategy for organising these communities. The aim of the first initiative was the installation of solar panels on school roofs and the creation of an energy community managed by teachers, parents, and municipalities. The goal of the second initiative was to increase long-term energy efficiency and autonomy in two impoverished neighbourhoods by creating energy communities among the residents of these neighbourhoods and their respective municipalities.

In both cases, despite the differences and beyond the legal and political issues (which represent a serious obstacle but are not the focus of this report), we observed that a lack of trust of other individuals as well as state institutions makes the creation of energy communities a difficult endeavour, though, of course, not an impossible one. The key aspect that must be taken into account in these contexts, emphasising the lack of trust, is that one cannot expect initiatives to emerge spontaneously from the people themselves; they must be encouraged and organised by other entities that are interested in the green economy and democracy. In other words, several cases need to be created under "laboratory conditions" until they transform into successful cases that can inspire similar initiatives in the future. It is necessary that the relationship between individuals themselves and with the local authorities are mediated by these entities until the stabilisation phase of the energy communities, which, above all, must work to gradually restore the trust of all parties involved in the process of creating energy communities.

How can we escape from the culture of mistrust?

As we well know, there are no ready-made and universal "recipes" as despite the similarities between countries with similar histories, people and social contexts are different. However, in my opinion, while we expect the functioning of the state to improve, welfare to increase and some components of the value system to change etc., we can act to restore trust. In my perspective, especially in regard to the civil society organisations, it means working at a micro level with small communities in both urban and rural areas, as building energy communities, aiming precisely at the gradual restoration of trust in oneself, in others and in the ability and possibility to reconceptualise the municipality as a plurality where it is even more possible to integrate both individual and communal interests.

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INTERVIEWS

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European Energy Communities Forum in Prague 2024

The interviewees represent organisations dedicated to the development of energy communities in Central and Eastern European countries: the Czech Republic, Bulgaria, Hungary, Slovenia, Latvia, Serbia, Ukraine, and Poland. These countries share a common past and a political system that has influenced the growth of energy communities. We invite you to read on to learn more about these important developments.

ENERGY COMMUNITIES IN THE CZECH REPUBLIC

INTERVIEW WITH ANNA MICHALČÁKOVÁ (THE COMMUNITY ENERGY UNION)

Bartłomiej Kupiec: Thank you very much for agreeing to this interview. It's incredibly beneficial for us to discuss the Czech experience in developing energy communities and energy sharing. Our interview will be divided into two parts. The first will focus on energy communities in general and the influence of the Soviet communist legacy on the development of local energy projects and the citizen energy community movement. The second part will delve into energy sharing.

Hello, Anna, thank you once again for agreeing to this interview. I'd firstly like to talk about energy communities in the Czech Republic and the impact of the Soviet communist legacy on the energy community movement. How has communism's historical legacy influenced the approach to community energy resources and energy communities? Has it affected the citizen energy movement in the Czech Republic?

Anna Michalčáková: That's a very broad question, but in short, yes, it has. The approach to community energy in the Czech Republic has to be adapted; it can't be directly copied from Western models. We need to find our path when building community energy projects. We see that people don't have a strong inclination to create communities. Usually, a municipality is the primary driver of creating an energy community project. This can be a tiny municipality driven by a single mayor in a village of around 400–500 people or larger cities with hundreds of thousands of residents who want to establish an energy community.

However, these efforts are usually very driven from the top down. This top-down approach is mainly because municipalities and similar organisations have the financial resources to invest. They're also seen as more reliable partners by banks, which are more willing to lend them money. People here aren't accustomed to organising themselves into communities. The narrative around community energy changed significantly with the Ukraine crisis, as people started seeing it as an opportunity to become more self-reliant and secure in their energy supply. The crisis also reduced distrust towards renewable energy, with many realising that they could have their own solar panels. On an individual level, people are keen on having solar panel systems, especially with the subsidies available. However, we now need to bridge the

gap to encourage community creation. There must be some authority to guide them, ensuring that it's safe and beneficial for everyone involved.

BK: If I understand correctly, the supply of energy in the Czech Republic is still largely seen as the state's responsibility. Is that accurate?

AM: Yes, definitely. Although we're beginning to see some changes, they're still minimal. Interestingly, while people in the Czech Republic don't trust the state very much, they still believe in the state's narrative that building large nuclear power plants can resolve the energy crisis. This is the primary plan, with renewables only playing a small part in the solution. Community energy isn't seen as something to be feared because it's perceived as small-scale. This is significant because the energy sector in the Czech Republic is closely connected to the government, which is a systematic issue. While community energy is gaining popularity, even among politicians, there's a lack of deep understanding. It sounds appealing but isn't seen as a significant concern or priority.

BK: Let's move on to the participation of women in energy communities and local energy projects. Are there any legal provisions in Czech law that encourage the participation of women or sexual minorities in energy communities? Are there any barriers to their participation in local energy projects? Do women participate in such endeavours, and are they present in the management or governance bodies?

AM: If we look at the government or legislative level, there isn't any specific support for women or sexual minorities. This kind of support is practically non-existent at government level. However, in certain projects, we see something typically European: because community energy projects are more environmentally and socially driven, they tend to attract more women. This is also true in the Czech Republic. Nonetheless, the energy sector is still viewed as very technical and is predominantly male dominated. While more men than women are involved, particularly in technical roles, the presence of women is increasing, especially in social and environmental aspects.

Regarding sexual minorities, there isn't much recognition or specific support for them in the Czech Republic. As a society, we tolerate sexual minorities, but public policy doesn't actively support or respect them to a significant extent in the energy sector. It's a rather indifferent environment; there's a sense of "we don't care about you" when it comes to minority groups. If I look at the type of people involved in community energy projects, they're often more socially progressive or environmentally conscious. These groups tend to include more women and supporters of sexual minorities. However, this is in terms of current projects rather than any systematic approach.

BK: Does the state provide any support to individuals affected by energy poverty to facilitate their participation in energy communities? Is energy poverty defined under Czech law?

AM: There have been discussions about including energy poverty in Czech legislation. There have also been surveys and studies on how to support those affected. During the energy crisis, there were special programmes and subsidies for people at risk of energy poverty, which were relatively successful. However, the support wasn't very well defined. Assistance was given to almost everyone who applied because there wasn't enough data to identify who was genuinely at risk. They primarily focused on the elderly and people with disabilities who already receive some state support. Additional support was provided, but a more systematic approach was needed. The inclusion of energy poverty in law was discussed, but I'm unsure of the outcome.

BK: Including energy poverty definition in legal acts is crucial for accurately measuring and researching the scale of this problem. As far as I've researched, energy poverty hasn't been defined in Czech energy law. Let's move on to success stories and challenges in local energy projects. Could you share a successful case study of an energy community project? During our conference in Prague, you mentioned five energy communities in development that were expected to be operational by September or the autumn. Did they achieve this?

AM: There was indeed support for creating energy communities through a grant subsidy programme. This programme focused on conducting surveys to determine how to implement the communities and gauge public interest. It's still in the preparation stage, and discussions are ongoing about which projects will receive support. It appears that 65 projects will be supported.

BK: 65 supported projects?

AM: Yes, but it's important to note that not all of these are solely community energy projects. There are four categories in the programme, and three of them align with the definitions of energy communities according to EU and Czech law.

BK: Okay. Are there any notable developments in local energy projects? Could you provide a case study of a municipality or another project that has been developed locally and involves citizens in renewable energy initiatives?

AM: Yes, there are many such projects, but we might only be aware of a few because people often need more time to discuss their success. It's unusual and perhaps amusing, but they see it as just doing their duty. However, there are instances where villages have achieved self-sufficiency. For example, in the village of Kněžice, the mayor has made the town self-sufficient for around ten to fifteen years now, making it a frontrunner. Although this project is municipally driven and provides heat and electricity to the residents, it doesn't fit the strict European definition of a community energy project due to the lack of membership structure and similar aspects.

In smaller municipalities, towns and villages, there are numerous projects. I can send you a link that details all these projects, including a map showing where you can find various energy and environmental-related projects. Close to a hundred municipal projects are focused on energy management, building renewables, and involving local people.

We're in the initial stages of community energy in the Czech Republic, so it's pretty new. Typically, municipalities start with energy sharing among their buildings and might include one or two local SMEs. They prefer a staged approach, starting small to minimise the risk of failure before expanding. By starting on a smaller scale, they aim to establish a proven, reliable model that builds trust within the community. This is particularly crucial given the prevailing scepticism towards new and smaller energy initiatives, which has been exacerbated by past incidents of "energy scams." Demonstrating the model's success and credibility is therefore a priority before pursuing larger-scale expansion.

In our legislation, we have something called an "active consumer," which allows energy sharing for up to eleven connection points, which we consider as a micro-community. Then, we have energy communities, including up to a thousand members or connection points. Smaller villages and municipalities often start with the active prosumer model to initiate community projects. The risk is that they might stay small and not expand to include more people, but we'll see how it progresses.

BK: Is there rivalry between the concept of active consumers in Czech law and renewable and the citizen energy communities defined by European law? Is there a conflict between these ideas?

AM: Yes, definitely. There's rivalry between active consumers and the energy community concept, even among our members. Local action groups, which are highly active here, organise people and SMEs in the regions. They have a good understanding of their region and know where to build renewables and where there's significant consumption to ensure efficiency. These groups are proponents of large energy communities and aim to establish actual energy communities.

On the other hand, the active consumer model is a starting point for those who prefer to begin on a smaller scale before committing to larger projects like establishing an energy community. Some find the active consumer model sufficient. They create energy sharing setups between their municipal buildings and don't feel the need to expand further. They may need more motivation to open it up more broadly. However, among our members, those who start with an active consumer micro-community usually have a larger project in mind and plan to become a fully-fledged energy community later.

There's also includes a two-year transitional period during which energy sharing won't be as effective because an energy data centre is still being developed. This centre will serve as a comprehensive calculator for all energy-related data, thus helping to ensure that there'll be smooth energy flows and no blackouts. In the Czech Republic, there's a popular narrative that too many RES (Renewable Energy Sources)

will cause blackouts and that we're already in real danger of this, but the truth is that there's no real risk of a blackout in the Czech Republic at the moment.

The electro-energy data centre should be fully operational by 1 July 2026 and will be equipped with all the necessary features to enable much more effective energy sharing. Many are waiting for this development to fully take advantage of energy sharing opportunities.

BK: Okay, let's delve into energy sharing now. Please tell me about the Czech Republic's legislation regarding renewable energy communities and energy sharing. Why was it introduced, and does it address the problem of energy poverty? Are there any provisions for vulnerable consumers or low-income households? Does it offer any advantages for them, or is it just another service?

AM: Currently, it's only a possibility for people affected by energy poverty; there isn't specific support aimed at them. The legislation provides the framework for energy sharing and community projects but doesn't directly address the needs of vulnerable consumers or low-income households with targeted provisions.

BK: What exactly is an energy community under Czech Republic law?

AM: Similar to EU legislation, we have two types of energy communities, but with slightly different naming conventions. The term "CEC" (Citizen Energy Community) in EU terminology is an energy community in Czech law. We also have renewable energy communities directly transposed from the EU law. Essentially, they use a broader term, "energy community," for one specific type, which might complicate things.

Energy sharing differs between active consumers and energy communities. An active consumer can share energy between eleven connection points across the Czech Republic. However, an energy community can share energy only within three neighbouring regions. These regions typically include one town and the surrounding villages, roughly ten to thirty in total.

BK: Are these regions exclusively urban, suburban, or rural?

AM: It's not specific to urban or rural regions. Due to its size, Prague is the only exception. In Prague, an energy community can only share energy within the city.

BK: That's interesting. Regarding energy sharing, it's not like a typical buy-and-sell contract in regular energy market transactions, is it? How does it work? Is it for-profit or non-profit?

AM: We managed to implement energy sharing as a non-profit activity. An energy community can become a trader or supplier, but it must then adhere to all the regulations that standard energy suppliers must follow, such as obtaining a trading

licence and meeting other regulatory requirements. If the community chooses to share energy, they must agree with their members on the terms of energy sharing and what members will receive in return. Notably, an energy community in the Czech Republic can only generate up to 33% of its revenue from energy sales, with the remaining 67% reinvested back into the community. This ensures that the primary focus remains on community benefit rather than profit distribution.

BK: That's interesting because it's quite different to Poland. We don't have such provisions in Poland, and our law doesn't recognise energy sharing. I think the Czech Republic and Portugal are pioneers in this area in Europe. So, what's the purpose of energy sharing if it's not done for profit? Is it about energy security?

AM: Well, as we see it, it's the first step towards decentralising the energy system. Currently, energy sharing may not be too economically attractive but it serves other essential purposes. It enhances energy security, offers stable energy prices and an environmentally friendly solution, and it significantly contributes to decarbonisation. People can actively participate in this by becoming members of energy communities. We hope that it'll lead to a faster deployment of renewable energy resources, including wind energy, which is currently being obstructed in the Czech Republic. Installing a wind turbine can take seven to ten years, which is absurd. We see community energy projects as a vehicle to promote wind energy development.

BK: So, the benefits or savings from energy sharing and other activities of energy communities or active consumers are reinvested into other community projects?

AM: Yes, exactly. The difference is that an active consumer can use their revenue however they want, without any specific obligations. In contrast, energy communities must prioritise purposes beyond just financial gain. The law states that these communities shouldn't be primarily profit driven.

BK: It's challenging in a free market, where the primary goal is earning money and maximising profits, often following a neoliberal capitalist model.

AM: Yes, it's pretty different. The main goals of energy communities are social security, energy security and other higher objectives. Energy communities represent an early effort to transition our free market economy towards a more sustainable and community-oriented model.

BK: Exactly! The concept of energy communities, in which the decision-making process is governed by democratic principles, may stimulate local economies and generate additional income for its members, which would be redistributed according to principles of energy justice.

AM: I completely agree. The concept is very trendy in the Czech Republic right now, and while it will generate some revenue, it's not the primary focus. People are working hard to make these communities operational and to provide energy security and other benefits to their members. However, the financial returns need to be more substantial to attract banks, as they prefer a return on investment within five years, whereas these projects often take around twelve years. We focus on obtaining more subsidies and grants from modernisation funds to support community energy projects.

BK: Tell me about the interaction between energy communities, future energy communities, energy sharing and the Distribution System Operators (DSOs) in the Czech Republic. In Poland, DSOs often act as barriers to developing energy communities. How do DSOs in the Czech Republic view energy communities?

AM: Currently, it's a very sophisticated conflict. We exchange arguments about what we believe is beneficial, and they counter them with their concerns. DSOs are heavily lobbying for subsidies, arguing that without financial support to make the network more reliable, they won't be able to connect more renewables due to capacity issues, which could lead to blackouts. They have various scenarios to support their claims and are gradually preparing the public for potential increases in distribution fees. They argue that it'll be much harder to maintain network stability with the increased energy flows from renewables.

BK: They're claiming that this is because of the energy communities and the increase of renewable energy sources in the grid?

AM: Yes, that's their argument. They dislike small-scale renewables, whether they're a single-family house or a community project, and are resistant to having too many of them. In the Czech Republic, the distribution network operators and traders are the same entities under different names. Despite unbundling being mandated, it hasn't genuinely occurred in practice.

BK: That's a significant issue. I also advise energy communities in Poland, and we frequently encounter problems with DSOs. Even though Polish law now clearly stipulates that DSOs are obligated to conclude agreements with energy cooperatives and energy communities and even specifies the timeframe for these agreements, they often ignore these regulations.

AM: Yes, absolutely.

BK: It's a significant problem because they don't follow through.

AM: Exactly, they aren't afraid to disregard the law.

BK: Precisely.

AM: So, we're working hard to push the law through. Currently, they're trying to delay the energy-sharing process. Energy sharing was supposed to start on 1 July, but now it's been pushed to 1 August. They've known for years that this was coming, but now they claim they don't have enough smart meters to install necessary energy sharing. DSOs argue that it's difficult to procure these meters because they're in high demand.

Moreover, as mandated by law, they should install them for free, and they've received around three billion crowns from the modernisation fund for this purpose. So, they already have the funding for the smart meter rollout. There's also a legal problem related to this. The free smart meter installation mandated in the Energy Act is binding for DSOs, but they're refusing to install them until there's a functional Energy Data Centre (EDC), which will enable sharing in practice. Additionally, an implementation regulation on metering was supposed to clarify that DSOs have to start installing smart meters before the EDC is operational, but it's still unclear and there are multiple interpretations of the regulation.

BK: So, generally, are energy communities and the citizen energy movement recognised in the Czech Republic's energy policy? Do you believe the state adequately supports them? Also, what are the views of the political parties on local energy and energy communities? Do all parties support this movement, or are there any renewable energy sceptics within the Czech political parties?

AM: Generally, the entire political establishment supports renewable energy, mainly because the public also supports it. However, we do face issues with rising energy

prices. Politicians, particularly those from the populist side, sometimes blame the European Green Deal and higher energy prices on renewables. However, this differs from the mainstream view, as the debate has progressed beyond that point. There's a significant focus on nuclear energy right now. As you may know, renewables and nuclear power sometimes complement each other well because one is too stable and the other is too flexible. This mismatch can lead to inefficiencies.

Moreover, if billions of euros are invested in nuclear energy, there won't be sufficient funds left for renewable projects.

BK: Renewable energy development and grid upgrades should be a priority in the energy mix of the CEE (Central and Eastern European) countries. Renewable energy sources are crucial for reducing greenhouse gas emissions and mitigating climate change, to align with international climate agreements. Economically, investing in renewables creates jobs and stimulates local economies, enhancing energy security. The cost of renewable technologies, such as solar and wind, has significantly decreased, making them more competitive than traditional energy sources. Furthermore, diversifying the energy mix with renewables reduces price volatility and provides long-term stability in energy markets.

BK: What are your views on the future of energy communities in the Czech Republic? Do you have any policy recommendations regarding what should change and what might happen in the future?

AM: Indeed, we aim to enable energy communities to act as aggregators of flexibility and participate in the flexibility market. We conducted a study to assess community energy's potential in the Czech Republic, which revealed that nearly 80% of household consumption could be covered by energy community electricity and heat. This is a significant opportunity that we're striving to realise. We set a goal to have at least 100 operational energy communities by 2025, and with the 65 supported pilot projects, we're on track to achieve this. A new subsidy programme for community energy is also being developed, which will provide further support. Our vision includes a more decentralised system with higher participation rates. Wind energy is vital, as we believe energy communities can facilitate its development by increasing public involvement and mitigating the NIMBY (Not In My Backyard) effect.

BK: I hope that it'll happen. Quick question: does the issue of energy poverty need to be included in the internal agreements or bylaws of energy communities? Is it their responsibility to tackle energy poverty?

AM: No, it's not explicitly required in energy communities' internal agreements. While energy communities can benefit people facing energy poverty, they're not obligated to address it directly.

BK: Okay, so there aren't any special provisions or obligations?

AM: Correct. The inclusion of energy poverty considerations depends on the people forming the energy communities. However, we do see this happening in practice. For instance, one of our members near Prague is working with a social cooperative that supports the elderly and vulnerable people. So, while not mandated, community members often include these considerations out of goodwill.

BK: Anna, thank you for this interview. I wish you all the best in developing energy communities in the Czech Republic. You're doing a fantastic job!

CHALLENGES AND OPPORTUNITIES FOR ENERGY COMMUNITIES IN BULGARIA

INTERVIEW WITH KRISTIYAN DIMITROV (GREENPEACE BULGARIA)

Bartłomiej Kupiec: Hi, Kris. Thank you for agreeing to this interview. I would like you to introduce yourself.

Kristiyan Dimitrov: My name is Kristiyan Dimitrov. I'm from Bulgaria. I've been working for Greenpeace Bulgaria as an energy communities campaigner for about two and a half years now.

BK: So, my first question will be about communistic legacies. How would you assess the impact of the communist regime on the energy community movement and the creation of energy communities? How does the Soviet communist history influence the approach to renewable energy and energy democracy in Bulgaria?

KD: I think our Soviet, communist, socialist past, whatever you call it, still has a significant impact on the Bulgarian mindset. People still believe that the state is obliged to distribute, produce and provide energy at a very fair and low price. They struggle to understand why we should shift to another type of energy system, such as a decentralised system or a free market. Currently, in Bulgaria, households are on the regulated market, resulting in very low electricity prices. This mindset significantly affects the development of energy communities. Many people see energy as something that just falls from the sky. They don't know how it's produced or by whom, and they just consume it.

Four years ago, the acceptance level for renewable energy was really high. However, in the past two years, energy prices have skyrocketed, and solar panel systems started appearing on agricultural land. Some of these installations are quite large and close to villages, and the local communities weren't consulted. This has led to a huge wave of unacceptance of solar energy because they feel that it's destroying fertile land and nature. Consequently, the acceptance of solar energy is now definitely lower than it was two or three years ago.

Still, many people are pro-renewables. However, there are political groups using this situation to increase the tension between the pro- and anti-renewable groups. They're also spreading fears about wind energy, such as claims of radiation or harm to animals, which exacerbates the divide.

BK: Yes, the effect of fake news is also seen in Poland. Many Polish farmers, influenced by alt-right propaganda, are reluctant to install renewable energy systems in their fields because they fear it might affect their livestock. So, fake news is everywhere I see. Let's talk about the regulatory framework you mentioned at the beginning. How does it look in Bulgaria? Are energy communities defined in legal acts?

KD: Yes, energy communities, specifically renewable energy communities and citizen energy communities, are defined in Bulgaria's legal framework. This was established in October last year. However, it seems to be the general opinion that this was merely a copy-paste of the Renewable Energy Directive, the second one. It's essentially just a few sentences defining what an energy community is, what it can do and stating that the government and the DSO should stimulate them. And that's it.

BK: So currently, there's no support scheme for renewable energy communities, just legal definitions?

KD: Exactly. There's no support scheme in terms of finance or anything else, like reducing administrative burdens. Additionally, there's no secondary legislation. We only have the primary legislation, and the regulations and bylaws are still not available.

BK: Is energy sharing defined in your legal acts, or is it also still not defined?

KD: So, some of the things that the energy communities can do is defined: producing, selling, storing, or sharing energy. But like I said, it's written that it can share, but this is something that should be defined in the bylaws and this is a responsibility of the Energy and Water Regulatory Commission. And this is our national regulator, and they should, let's say, make these updates of the by-walls regarding the updates in the main wall, and they're kind of reluctant to do it. So, it's still a case that we don't have the technical, let's say, the technicalities regarding how energy communities should and can share energy between them or inside the energy community.

BK: It appears that Bulgaria has simply transposed the EU directives without significant adaptation. Could you explain the rationale behind this approach? Was it a deliberate decision? Does the government truly understand the concept of energy communities and citizen energy, or is there a lack of support for these initiatives?

KD: I think it's a complex situation that has developed over the last two years. It would be simplistic and inaccurate to say that the politicians just copied the directives solely because of external pressure from the European Commission. However,

there was indeed an infringement procedure against our country for not transposing the directive, and in a meeting with the Ministry of Energy, they admitted that they did it this way because of that procedure.

But looking at the bigger picture, several factors contributed to this. Firstly, there's political instability. We're preparing for the seventh general election in the last two and a half years. With no stable government, it's hard for the authorities to focus on issues beyond immediate priorities like the budget and financial framework. Secondly, I believe there's a lack of understanding about what energy communities are. Finally, there might be a reluctance to involve people in the energy system. There are claims, though unproven, that some former members of parliament worked as consultants for DSOs, who prefer to work with a few producers rather than thousands, potentially blocking the development of these laws.

Additionally, the Ministry of Energy is understaffed and the experts there don't fully grasp the concept of energy communities. We at Greenpeace, along with other organisations, provided them with comprehensive versions of the law, complete with detailed provisions on how to protect and empower energy communities. However, they chose to just copy-paste the directive instead.

BK: Well, it's really sad to hear that because I think energy communities can play a crucial role in the energy sector in all countries, especially in Eastern Europe. But tell me, are energy communities mentioned in your energy policy acts?

KD: We have a document called the strategy for development of the energy system outlining the developments until 2030 and 2050. There are a few of these plans, including a draft version of the Integrated Energy and Climate Plan (INECP). Both documents mention that the state will support the development of energy communities. However, there are no details on how this will be achieved, such as what kind of financial support or administrative procedures will be put in place. There's no information on whether there will be dedicated funds from the European Union or from the state, nor are there any specific goals, like how many energy communities should be developed by 2030 or 2050, or how many prosumers there should be. No numbers at all.

BK: Okay, so, it seems that the Bulgarian government considers energy communities as an idea from the EU Commission that needs to be transposed into national law, but they don't really understand it and don't intend for it to function properly.

KD: Exactly. They don't understand it, you're definitely right about that. Additionally, they constantly say that nobody wants to build an energy community, so there's no need to change the law. But of course, nobody is going to want to because the current administrative process is a nightmare. In our conversations, people often ask how to start an energy community. When I explain the procedure and steps involved, they typically respond with, "Maybe I'll just put a solar panel on my roof and that's it." So, it's definitely a challenging situation.

BK: Are there any initiatives to establish the first energy community in Bulgaria right now?

KD: There's already one energy community, an initiative started by the local government of a medium-sized town by Bulgarian standards, called Gabrovo. They began this initiative before the legal framework was in place, so administratively it's not an energy community, but it operates as one. It's called Energy Community Gabrovo and was crowdfunded by the people. Currently, it's producing energy and they're waiting for the DSO to connect them to the grid. Additionally, there's a second initiative started by the local government in Burgas. They launched a crowdfunding campaign just a week ago. These two initiatives are driven by local municipalities. The municipalities provide the space for energy production and handle the administrative steps through their experts. The idea is for these communities to be owned and funded by the people.

BK: And why do you think these municipalities, despite the unattractive regulatory framework for energy communities, started these initiatives? What do you think were the driving factors?

KD: Both municipalities have a few bright and forward-thinking experts. Without someone in the municipality ready to take on the challenge and initiate this difficult process, such projects wouldn't happen. Most municipal employees just do their nine-to-five jobs, drink their coffee, and go home. It takes a spark from a really dedicated individual to get these initiatives off the ground.

Actually, yesterday I was in another municipality close to Sofia. Todor Popov, the driving force behind the first energy community (Gabrovo), was there. We were presenting to the municipal officials on how to start their own energy community. Many people attended, which was surprising. However, people often don't understand the purpose of an energy community, and most municipalities are understaffed. Without a key driver or motivator within the municipality, it's unlikely that they'll start energy communities, even though they're obligated by law to set up one-stop shops for this purpose.

And it's written in the law that they have to develop a one-stop shop for developing energy communities and for energy efficiency. But there's nothing from the government's side, no support for the municipalities with personnel, experts, or funding to develop these one-stop shops. So again, municipalities are understaffed and they don't understand the subject matter. How should they develop these one-stop shops? We started working with them to raise their awareness and capacity so they can handle this. Someone needs to work with them, but the government isn't doing that.

BK: So, the government isn't working with them, and what about DSOs? Are DSOs obliged to install smart metering in energy communities? How does the smart metering situation look in Bulgaria if you know anything about it?

KD: This is another topic we're working on: smart metering. The lack of smart metering is one of the main reasons why energy sharing isn't working right now in Bulgaria. We don't have net metering or virtual net metering. There are a few reasons for this.

One positive aspect of the new legal framework is that the Sustainable Energy Development Agency (SEDA), which operates under the Ministry of Energy, was tasked with assessing the barriers and potential of energy communities and prosumers. They completed this analysis in late 2023, early 2024. However, until we address the lack of smart metering, energy sharing remains a significant challenge.

To summarise the analysis, it wasn't very comprehensive and progressive. It mentioned a few barriers, but overall, it stated that there isn't much potential for prosumers and that there are no significant barriers in the law. However, it did highlight two main issues: the current impossibility of energy sharing and the absence of financial schemes to support energy communities. Additionally, there's a problem with how the vast amount of data generated after the installation of smart meters will be stored, managed and who'll be in charge of it.

The Energy and Water Regulatory Commission is the main body in Bulgaria responsible for the bylaws connected to the electricity market. They're tasked with updating the rules for electricity trade and the rules for the metering of electricity. The Commission also needs to conduct an analysis every three years to determine if it's economically viable to install smart meters. The last time this analysis was conducted was in 2013.

Right now, the DSOs are saying that they're not installing smart meters because there's no financial or economic analysis supporting the need for them. We're still waiting for an up-to-date analysis. The situation is creating a cycle where everyone's passing the responsibility to someone else. As a result, smart metering is stuck.

Additionally, the DSOs have received funds from the Modernisation Fund, around 200 million (though I'm not certain about the exact amount), for installing smart meters. This grant was awarded last year, but now they're claiming that they don't have the money. The Commission says the DSOs don't want the money, and the DSOs say the Commission isn't giving it to them.

The Commission also plays a crucial role in approving costs for grid updates and renovations proposed by the DSOs. These costs need to be approved by the Commission before they're reimbursed by the state. However, many new updates proposed by the DSOs aren't getting approved, making them reluctant to make any updates to the grid. And that's where things currently stand.

BK: Tell me about the energy grid and the infrastructure. Do you think it's a bottleneck for energy transition in Bulgaria? Is the infrastructure old?

KD: Definitely. The infrastructure is old. There are many small villages and even small towns with an extremely poor energy grid, resulting in frequent breakdowns and constant electricity shortages. The whole system is designed in an outdated way, relying on a few large producers, and the energy flow is unidirectional. We definitely need to restructure the entire energy grid to accommodate lots of new, small producers.

The Electricity System Operator, which is another government entity controlling the high-voltage energy system, has received funds from the Modernisation Fund. They're upgrading the grid, but primarily at the high-voltage level to accommodate more renewables. However, this upgrade doesn't extend to the lower voltage levels that directly affect local communities.

On a positive note, Bulgaria has a strong interconnection with neighbouring countries. We import electricity from Romania during the night and export electricity to Greece and North Macedonia during the day. So, our international energy flow is quite robust.

BK: Okay, so I think we're nearing the end of the interview. I've just got two last questions. Are women involved in the energy community movement and are there any provisions to help women or vulnerable consumers get involved in citizen energy? Lastly, what's your prediction for the future of energy communities in Bulgaria?

KD: Really great questions. To the first one, I would say that minorities and women aren't really included in the energy sector, energy transition or energy democracy. Energy poverty is a significant issue in Bulgaria. Although it was finally defined in Bulgarian legal acts in November last year after about 15 years of discussions, its implementation has faced numerous challenges. None of the key ministries,

including the Ministry of Energy, the Ministry of Social Affairs, and the Ministry of Regional Development, are willing to take responsibility for addressing the issue. As a result, there's a lack of coordinated efforts to compile a comprehensive list of energy-poor individuals, conduct necessary assessments or develop strategic plans and funding programmes.

Currently, the legislation exists, but no concrete actions are being taken to address energy poverty. Approximately 28% of the Bulgarian population is affected by energy poverty. Projections suggest that by 2026, with the shift to a free market, this figure could rise to nearly 40%. While there's no specific data on whether energy poverty is more prevalent in urban or rural areas, it's known to be particularly severe in districts with significant Roma populations.

Currently, the project is in the very early stages. As I mentioned, there's an emerging initiative about the first energy community composed solely of women. This initiative, though in its infancy, holds great promise and potential. It's a very early-stage project with only a few people involved and it doesn't even have a name yet. I can provide you with some email addresses, including my colleague Maria Trifonova's. She's one of the few people in Bulgaria actively working with us to develop energy communities. But, as I said, this is still very early on.

Regarding your second question about my prediction, let me elaborate further. We have made significant progress and are now starting a new initiative involving plug-in systems, specifically balcony solar panels under 1kW in power. A key aspect of this initiative is our collaboration with Habitat for Humanity. This partnership allows us to work in minority districts in Sofia and other towns, sharing a common goal of improving living conditions through sustainable energy solutions.

Most houses in these areas need addresses because they've been built illegally. You need an address to receive financial aid, such as vouchers for wood in the winter. Without an address, they can't access the aid. Our initiative, which aims to tackle energy poverty, could potentially revolutionise the way this issue is addressed. By allowing these small solar systems to be easily plugged into the internal grid, we're providing a practical solution. However, this kind of installation still needs to be regulated. There are currently no regulations for micro-installations, and we're working on making these small systems easy to install with only minimal registration requirements.

As for my prediction, people are beginning to understand an energy community. People gain confidence by using examples such as the municipalities of Gabrovo and Burgas, where the local governments support the initiative. By January 2026, all households will transition to the free market, meaning the regulated market will be shut down, and everyone will pay market prices. People will realise that energy communities are a viable way to manage their bills. These two examples, combined with the shift to the free market, will boost the development of energy communities. We're focused on raising awareness, improving the legal framework, and promoting these exemplary cases. After 2026, there'll be much more progress to report.

BK: Okay, thank you very much Kris, thank you very much for this interview. It was very insightful.

COMMUNITY-LED ENERGY INITIATIVES IN HUNGARY

INTERVIEW WITH ESZTER ÚR AND MÁRTON FABÓK (SOLIDARITY ECONOMY CENTRE)

Bartłomiej Kupiec: As I've already explained, this interview is for a HBS publication on Eastern European countries, energy communities and also the legacy and the influence of communism on the development of citizen energy in these countries. Let's start with the first question. How does the Soviet communist legacy in Hungary impact the involvement of citizens in energy transitions? Also, are people keen to participate in energy communities? Who would like to answer this question?

Eszter Úr: I think, because of the Soviet communist legacy, there are some problems with perceptions of cooperatives and shared resources in general. So, yes, there's a problem with that. But it's also an exciting position that we have because, you know, during the Soviet communist era in Hungary, but also in other parts of Eastern Europe, of course, many activities took place outside the proper working sphere that needed to happen for people to have enough money or resources to sustain themselves. How people used to build houses is a perfect example of this. In a village, people would come together and build one person's house, and then they would go to another person and then build that home together. So, I think there's a really, not just from the state Soviet communist era that was a very top-down culture cooperativisation, but there's also a bottom-up thing that was happening in the Soviet communist era. And this something we can build on, or that might still be in people's minds. That's my comment on that.

BK: So, is energy considered in Hungary as the state's responsibility, or do people take part in energy production and energy activities?

Márton Fabók: It's mixed because we have regulated, cheap retail prices. It's probably the most affordable energy in Europe, and that's a political product. The ruling party, Fidesz, used this as the central campaign theme in the 2014 elections ten years ago. And since that time, it's been rock solid. And obviously, it was based on this common assumption that the state should provide electricity. On the other hand,

Hungary has had a solar energy boom; so many households have solar panels, but purely out of financial motivation. It means that participation in the citizen energy initiatives is financially driven.

BK: Let's discuss this regulatory framework on Hungary's energy communities and energy sharing. Are energy communities defined in your regulatory framework? And what's energy sharing according to your law and policy?

MF: In Hungary, citizen and renewable energy communities are defined in the regulatory framework. However, the current definition could be more comprehensive and it doesn't fit EU directives. Notably, there are no proper restrictions on corporate involvement, which is a significant gap in the regulatory framework.

BK: What does it mean?

MF: There's a limitation that electricity and gas companies and officials can't have a majority role in energy communities, as far as I understand, but there's no restriction on the size of businesses. As a large company, you can be the sole owner of an energy community. So that's legally possible.

BK: Okay, and can energy communities in Hungary engage in electricity sharing? Energy sharing?

MF: Theoretically, yes. In practice, no.

BK: Why not?

MF: Electricity sharing is in the law as a single sentence, but there are no detailed regulations, and some areas make it impossible legally to do that. One is that residential consumers or those in universal service need another electricity supplier. So, having your supplier sell and buy electricity from somewhere else is impossible, such as in an electricity-sharing scheme. That's one problem. The other problem is that the whole group management needs to be connected to the grid. So, there's no scheme for that. And the third problem is that there needs to be proper access to metering data.

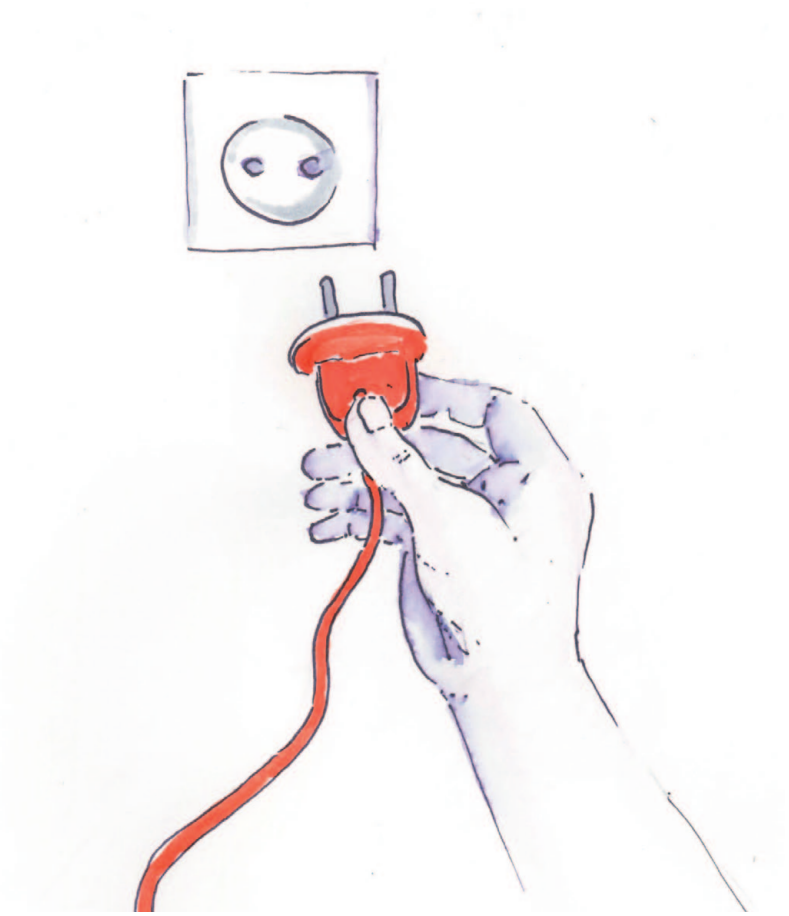
BK: Distribution operators aren't obliged to install smart metering in energy communities.

MF: But they're obliged to do so under the EU directive. Although consumers should have smart metering installed, currently they only get access to data the following day in the best case, in the worst case, not the worst case, but more typical case, after every month, which isn't frequent enough to have actual knowledge on trading for validated metering data.

BK: Let's discuss this single energy supplier. As far as I understand, legally, changing your supplier in Hungary is impossible or challenging.

MF: You can only source electricity elsewhere with a supplier or trader. So, if you're a residential consumer, you get your electricity for a low price, but if you also want to buy from your neighbour or elsewhere, there's no legal opportunity to do that. You can only source electricity from an energy community or an energy-sharing scheme that provides the exact quantity of electricity you demand every 15 minutes, which is a much more of a responsibility to balance than simply sharing surplus production.

BK: That's interesting because it's not in line with the EU directives. So, it's a huge barrier to electricity sharing in Hungary. And what about the involvement of vulnerable consumers in energy-poor households affected by energy poverty? And what about participation in energy sharing and energy communities? Does the law, for instance, does the regulatory framework in Hungary encourage these energy-poor households to participate in energy communities? Does the regulatory framework support these kinds of people to engage in energy communities?



MF: As I mentioned, there's no legal provision for that, as electricity prices are pretty low. In universal service, there's no financial incentive. Also, there's a government programme called social solar or social PV, funded from Hungary's Recovery and Resilience Facility plan funds. The programme is primarily targeting people in extreme energy poverty, largely Roma settlements, with a kind of scheme. But it's not an energy community scheme, it's a very stupid one. I can't phrase it in another way. It's total funding to have power plants, not residential solar panels. Still, greenfield solar plants sell electricity to traders and have coupons for these customers so that they can reduce their electricity bills. And there are also heat panels installed. So, it's a foolish scheme and very top-down, which doesn't encourage citizens to become active in the energy market.

BK: It is very top-down. Okay, I'd also like to ask a question about energy poverty in Hungary overall. Is it a problem in Hungary? Because as you've mentioned, electricity prices are low. And what about energy poverty? Is the level high? Is it a problem?

EU: I can answer that. So, yes, it's a problem. We need a proper definition of energy poverty in Hungary. There are different calculations; NGOs and think tanks use other data and calculations. How many households are energy-poor in Hungary? So, I couldn't give a proper answer to that. But yes, the housing stock is energy-poor. Housing stock is outdated. So, that's one problem. Many houses, especially in the countryside, aren't insulated. And then we also have low energy prices, as Márton said. But also, there's an average set into the price, and if you go above that average, then your prices, especially the price of gas, can skyrocket. So, if you're a widow living alone in a big house in the countryside, you might have to spend more on gas than you get for your pension. So, yes, that's a problem.

Also, many people, like the poorest households in Hungary, need to start using gas. They're using firewood and other materials that they can burn to generate heat. These households often rely on outdated heating systems, and the whole energy price regulation only covers gas and electricity. There's a social firewood programme, but it's insufficient, and municipalities control the distribution. Additionally, firewood prices have increased significantly in recent years, putting further strain on households.

BK: Are women affected more by energy poverty than men?

EU: Yes, if you consider elderly women, as women generally live longer than men and are more likely to be widowed. Also, in divorce cases, women often retain custody of the children and are responsible for heating and maintaining their households.

BK: In that case, does the regulatory framework on energy communities encourage women to participate in them, for instance, in management boards or governance bodies? Or is the law gender neutral in this aspect?

EU: I'm pretty sure it's gender neutral.

BK: We also place a strong emphasis on gender justice issues and aim to explore the connections between gender justice and energy communities. Therefore, we appreciate your response to this question. I'd like to ask about case studies on energy communities in Hungary. Do you have any success stories of energy communities or other local energy projects in Hungary? How many energy communities are there in Hungary?

EU: Officially, there are two, I can tell you about the Kazán Community Center; I think that's our most successful one. So, we facilitated the establishment of something we don't call an energy community. Still, we call it a community energy initiative because it's not registered. Due to the lack of proper framework or support institutions, we don't see any value in registering it as an energy community. So, this initiative involves a community building located in a post-industrial site in Budapest, where various NGOs, offices, independent media outlets, workshops and a cooperative pub operate. The building, which was in a state of disrepair with no insulation, has been equipped with 36 solar panels through funding and assistance. We have a good deal with the grid, which allows us to sell electricity, and we have a yearly metering system. The income generated from this electricity is used for energy efficiency measures, which are decided democratically during monthly meetings attended by representatives from all organisations housed in the building. The building itself is co-owned by an organisation with delegates from other organisations. It's a bit complicated, but that's the framework we have. It's not residential, but for different purposes, and it's working well. We've also implemented a smart system for our gas consumption, which has reduced it by 50% in a year.

BK: That's interesting. Thank you for this example of a successful initiative regarding energy communities. I want to ask another question about the policy landscape. Are energy communities recognised in Hungary's energy policy? And do political parties in Hungary support involvement in energy communities?

MF: Energy communities are recognised and the energy strategy even has ambitions to have one in every micro-region by 2030. However, the discussion is often framed as a new business model rather than emphasising democratic or cooperative principles.

BK: Is there a risk of corporate capture under current Hungarian legislation and views on energy communities?

MF: Yes, there is a risk of this, and it's already happening to some extent. For-profit companies or municipal corporations have led the most winning projects in grant rounds for pilot projects.

BK: Oh, yes, that's a risk because corporate capture can undermine the idea of energy communities. Does the law protect citizens against corporate capture?

MF: We're working on it to raise awareness and address the issue.

BK: Thank you for your insights. Let's move on to the last question. What are your views on the future of energy communities in Hungary? Could you sum up the most significant barriers for energy communities and how they can be overcome?

EU: The main barriers include the regulatory framework, a lack of funds, low saving among the middle-class, expensive loans and insufficient financial incentives due to low energy prices. Municipal and cooperative collaborations could be a solution, leveraging municipal funds and more significant incentives due to higher electricity prices for municipalities. However, without improvements in energy sharing regulations, the future of energy communities may be limited.

BK: Thank you for your comprehensive summary. Do you have anything to add, Márton?

MF: Eszter provided an excellent summary. While there are considerable barriers, the key question remains whether we can showcase successful bottom-up models that prove energy communities can function democratically, or if they will evolve into corporate-led initiatives with elements of greenwashing.

BK: Thank you very much for this interview.

ENERGY COMMUNITIES AND THE COMMUNIST LEGACY IN SLOVENIA

INTERVIEW WITH LENA PENŠEK
(GREENPEACE CENTRAL AND EASTERN EUROPE)

Julia Potrzebowska: Nice to see you. Thanks for accepting my invitation for this interview. As we discussed, we'll talk about energy communities and the impact of the Soviet communist legacy on energy communities in Slovenia.

Lena Penšek: Yes, of course. Thanks for asking for me to do this interview.

JP: I'd like to stick to the script, but we can elaborate on other points if they come up. So, I'll start with the first question. What's the impact of the Soviet communist legacy on energy communities in Slovenia as a post-soviet country? Are people eager to participate in these projects, and what are the main barriers or opportunities?

LP: First, it's important to say that I've only been researching and working on energy communities for about six months. I started working on wind energy in Slovenia and found that energy communities are the perfect way to balance the need for wind power with projects that might disrupt nature or living spaces. My background is more broadly in the energy and climate sectors. Regarding the impact of the previous system on energy communities in Slovenia, it's twofold. The concept of cooperatives, or co-ops, is familiar to Slovenians from the past, although not energy co-ops specifically. We had farmers' co-ops and housing co-ops, so people, especially those over 35 or 40, understand the concept. Younger people are also open to community-based solutions, not just for energy but for tackling global issues from the bottom up. Of course, my perspective is somewhat limited to my social circle, but generally, there's a sense of community.

JP: That's interesting. In Poland, people are interested in solar panels but prefer individual installations over community projects. They prefer to avoid the hassle of having to convince their neighbours. You mentioned that in Slovenia, there's more acceptance of community projects like wind turbines.

LP: Yes, in Slovenia, the idea of community and sharing is strong. It's not just about individual installations; there's a willingness to work together. People find it easier to rely on someone who understands the technology and can handle the bureaucracy. Also, with grid capacity issues, it's becoming more practical to join a community and share energy locally rather than feed it into the grid.

JP: You mentioned the advantage of relying on others in a community project. What about minorities, such as women or sexual minorities? Are there provisions in Slovenian law to encourage them to participate in energy community projects?

LP: In Slovenia, we have an example of a co-op led by a municipality, installed on a public-school roof. This co-op includes an energy-poor elderly woman as a member, highlighting how energy communities can address energy poverty more effectively than national schemes. Elderly women, especially single ones, are often the most vulnerable to energy poverty and the hardest to reach through national programmes. Energy communities provide a more personal approach, making it easier to identify and assist those in need.

Community energy is really one of the best and easiest ways to tackle energy poverty issues. In this context, gender equality plays a significant role. While gender equality in energy systems is a broad topic, it becomes particularly clear and straightforward in this area. Energy poverty affects the same vulnerable groups as other social issues, including women, especially those living in rural areas or older women.

Additionally, community-based solutions often reflect a more female approach to identifying and solving issues. This grassroots method, which stems from the needs of the people rather than from directives or top-down solutions, tends to be more successful. This approach recognises the collective power of a community, which is a fundamentally feminist idea. Understanding that community power can be greater than individual power addresses systemic problems, including gender inequality. Therefore, this approach inherently addresses systemic gender inequality issues.

JP: I agree. For instance, older women in rural areas are particularly vulnerable to energy poverty. I'm curious whether initiatives like your organisation or energy cooperatives can reach these vulnerable communities. Are energy cooperatives in Slovenia mostly located in urban areas?

LP: Rural areas are definitely less addressed. It might be difficult for energy communities to reach isolated farmhouses. However, a local is more likely to be aware of these energy-poor households than a government institution. Even if a specific person isn't part of a co-op, a nearby community can identify and tackle these issues more effectively. Empowered local people who are aware of energy democracy and their ability to manage energy locally are more likely to address issues like energy poverty among women living in rural areas. Current governmental measures

are insufficient in this regard. Identifying energy-poor households is more likely to be successful at the community level rather than through centralised government efforts.

JP: You mentioned many advantages of energy cooperatives. Do you have any successful energy projects or cooperatives in Slovenia that could serve as case studies?

LP: Yes, we have one that I like to highlight. It was established in January this year and is the first proper energy co-op in Slovenia. By "proper," I mean that it's legally registered as a co-op, not as a business or NGO. This became easier last year when better legislation was introduced, allowing for the establishment of citizen co-ops and renewable energy co-ops. An NGO, a municipality, and a private citizen created this particular co-op, along with 14 other members, all with equal voting rights.

JP: When did Slovenian law start allowing the registration of energy cooperatives?

LP: It became possible last year with the introduction of better legislation, making the process easier and less bureaucratic. Previously, you had to establish a firm or NGO, which complicated loan applications and other formalities.

The co-op I mentioned involves a municipality, a private citizen, and an NGO, with a school also being a member and beneficiary. This was established in Kraśnik, a municipality that's transitioning from coal dependency, making it a great case of just transition. They plan to establish another co-op by the end of the year, likely with solar panels on the roof of the kindergarten that will be a member.

JP: That's a great success story. How difficult was it to convince the citizens, NGO and municipality? Did you receive local authority support or was it a long journey?

LP: I wasn't directly involved in establishing this community, but from what I know, the municipality was a major initiator. The mayor, a progressive individual with a background in civil initiatives, played a crucial role. Initially, it was hard to get citizens involved; it took three public presentations and door-knocking to get the required 14 members.

JP: Is there a legal requirement for 14 participants to establish a co-op in Slovenia?

LP: No, but their calculations showed that having 15 to 17 members would be most beneficial. Once established, it became easier to attract more members for subsequent projects. Initially, they faced limitations due to the need for members to be within the same transformer station area.

JP: You mentioned recent changes in Slovenian law supporting energy communities. Are there other examples of legislative changes boosting or hindering energy community development?

LP: The most important recent law is the one on renewable energy establishment, which defines how to register energy communities and the types of co-ops. This allows co-ops to function as legal entities, enabling them to get loans and operate more smoothly. Another significant development is the inclusion of energy communities in Slovenia's National Energy and Climate Plan (NECP), which mandates every municipality with over 10,000 inhabitants to establish at least one energy community by 2030. Additionally, the government is offering subsidies for wind energy, which can support energy community projects.

However, while there are positive examples and legislative support, the political focus on nuclear energy presents a challenge. Although decentralisation efforts are ongoing, the major political and financial emphasis remains on centralised nuclear power, creating a dichotomy in the energy policy landscape.

JP: Given these mixed signals from the government, what do you see as the biggest challenges and opportunities for energy communities and citizen participation in Slovenia's energy market?

LP: The major challenges include bureaucratic processes and the strong focus on nuclear energy. Bureaucracy makes it difficult and time-consuming to establish energy communities. Additionally, promoting the idea of energy communities is challenging amid heavy PR campaigns for nuclear power. There's also a lack of public understanding of the benefits of energy communities, meaning that NGOs or other entities need to guide each community through the process. Despite these challenges, there are positive signs, such as increased awareness and legislative

support, which can pave the way for more successful energy community projects in the future.

I'd probably need to think a little more about specific examples, as I'm currently working on wind energy. We face different challenges, which is why we're trying to establish a wind co-op in Slovenia. It's a long-term plan, but an important one.

Another significant problem is securing loans. There are two main issues: first, a lack of understanding of EU financial mechanisms and how to access these funds through tenders as co-ops. Second, even if we understand how to apply, co-ops often struggle to get loans because they lack guarantees. It would be really beneficial to have some sort of state or European guarantee, similar to the concept already in place in the Netherlands, where they have a state guarantee funded by a foundation, which acts as a financial backstop for co-ops. This allows them to secure loans and rely on their financial structure. Without such long-term loans, which currently only span about five years, energy communities struggle since they typically need a financial turnover period of 10–15 years. If we want to expand energy communities more broadly, addressing this issue will be crucial.

JP: What about the possibility of securing funds through popular grant programmes or state subsidies for energy communities?

LP: In Slovenia, we currently have some subsidies for energy communities that are municipality-led. This year has been notable for public tenders related to renewables and energy communities. However, my most recent information is from March, as I've been focusing on other projects lately. Nonetheless, this year has seen a focus on public tenders, although there's significant room for improvement. For example, the tenders are primarily for municipality-led energy communities, not citizen-led ones. These tenders are often for renewable energy projects, where being an energy community offers an advantage but isn't a requirement. This means that large industries can also apply, making it difficult for small, citizen-led initiatives to compete due to a lack of knowledge and funds.

Furthermore, applying for European funds presents another challenge. Citizen-led initiatives often lack the means, knowledge, and awareness of such tenders. An intermediary, like an NGO or a knowledgeable community member, is usually necessary to navigate these applications. Typically, public funds cover only a portion of the costs, often around 50%, leaving the rest to be covered by loans or community member contributions. However, relying on community members' money isn't ideal because it takes about 10 years to recoup these funds, which isn't feasible for many. This situation creates an environment where only those with financial resources can form energy communities, turning cheap electricity into a luxury.

LP: This approach doesn't address the core issue of what energy communities aim to tackle, which is to provide equitable access to energy.

JP: Yes, I understand. This discussion has provided a clearer picture of the situation for energy communities in Slovenia. We've covered various topics, including the communistic legacy, energy poverty, women's empowerment in energy cooperatives, and the challenges and legal provisions involved.

Thank you very much for this interview, it was really insightful.

LP: Thank you.

INSIGHTS AND CHALLENGES OF ENERGY COMMUNITIES IN LATVIA

INTERVIEW WITH DR KRISTA PETERSONE (GREEN LIBERTY)

Bartłomiej Kupiec: It's great to see you and thank you for agreeing to this interview regarding energy communities in Latvia and the impact of the Soviet communist legacy on their development. Before we begin, I'd like to ask for your consent to record this interview using an automated transcription device. Could you please start by introducing yourself and your current role as an expert on energy communities in Latvia?

Dr Krista Petersone: Of course. I'm Krista Petersone, a renewable energy expert involved in several community energy projects, primarily through the NGO Green Liberty. Green Liberty has been active for about 30 years, focusing on climate and energy advocacy. We've engaged in various regulatory projects to support citizen energy initiatives and energy communities. Recently, we've started partnering on pilot projects that will be implemented in the coming years. Additionally, I often collaborate with regional planning authorities as an external expert, primarily leading stakeholder discussions around policy development.

BK: That sounds fascinating. Apologies if my internet connection isn't great today. Let's dive into the questions about the impact of Soviet communist legacy on energy community management. How does the historical context influence the approach to managing energy resources in post-communist countries like Latvia? Is this influence positive or negative? Are people generally inclined to collaborate on energy community projects?

KP: That's a very insightful question. The most significant impact of the Soviet communist legacy is evident in the building sector, particularly with the prevalence of Soviet-era multi-apartment buildings. These buildings dominate the urban landscape, especially in Riga, where nearly 70% of the population live in such structures built in the latter half of the 20th century. This legacy creates a substantial challenge for energy efficiency improvements and urban development.

On the positive side, the socialist past has instilled a belief in shared resources and a readiness for collective action, which can be beneficial for community energy projects. For example, our electricity system has successfully implemented smart meters across the board, providing a foundation for digital infrastructure. However, despite these advances, there's still significant reluctance within the economy and among policymakers. They often fail to see a viable business case for community energy projects, viewing them as somewhat disconnected from the traditional ways of managing energy systems.

BK: That's a comprehensive overview. What would you say are the main barriers and opportunities for energy community projects in Latvia, considering this historical context?

KP: The main barrier is the entrenched nature of Soviet-era infrastructure, which poses significant energy efficiency challenges. Moreover, the reluctance among policymakers and economic stakeholders to fully embrace community projects further hinders progress. On the opportunity side, the existing digital infrastructure, like smart meters, and the inherent communal mindset inherited from the socialist era, can be leveraged to foster collective energy initiatives.

However, there's still much work to be done to bridge the gap between these opportunities and the practical implementation of successful community energy projects. Before community energy projects can be truly successful, we need to face significant economic and governance challenges. Policymakers often fail to recognise the viable business case for these projects. The concept of community energy can seem abstract or impractical, alienated from traditional management practices.

BK: That's an interesting point. In Soviet communist countries, the energy system was highly centralised, with the state responsible for energy security. Citizens were neither encouraged nor able to participate in the energy market or produce their own energy. Now, with the shift towards decentralisation, how are Latvian citizens adapting? Are they engaging in this decentralised energy market, or do they still see energy security as the state's responsibility?

KP: That's a nuanced question because we observe contrasting trends in different sectors. Decentralisation is generally seen as positive, particularly in the heating sector, where there has been a move away from centralised district heating towards individual systems, often based on natural gas. This shift has been a byproduct of urban development and sprawl over the last decade. However, this trend towards individualisation isn't always seen as sustainable due to the increased pressure on resources.

In recent times, there's been a push to promote district heating as a common resource. This involves transforming the management of district heating companies, which still retain some infrastructure and management structures from the Soviet

era. In the electricity sector, Latvia has a single Distribution System Operator (DSO), a subsidiary of the state energy company. This DSO manages the entire country's electricity distribution, which has led to criticisms of a monopoly and slow progress in renewable energy promotion.

Despite these challenges, consumer culture around energy is developing. While Latvia is a small country with a modest population, we now have over 20,000 households with solar panels, which is a significant increase since 2021. These prosumers (producer-consumers) often face difficulties, such as navigating the net metering system. However, their independence still relies on larger economic players, as they purchase solar systems from major energy companies and remain integrated into the broader economy.

In summary, while there's no major social conflict regarding decentralised energy, there's a persistent economic power structure that continues to dominate. The shift towards a decentralised energy market is happening, but it's a gradual process influenced by both historical legacy and current economic realities.

BK: How many prosumers are there currently in Latvia?

KP: Latest figures indicate around 20,000 prosumers. These are primarily consumers with installations up to 11.1 kilowatts, classifying them as micro-generators. Additionally, there are larger consumers, including enterprises and new classes of active customers due to recent system changes. The initial wave of these prosumers is within the net metering system.

BK: Thank you for that information. Now, let's discuss the importance and impact of women and sexual minorities in citizen energy. Energy communities not only focus on energy production and market activity but are also seen as tools to combat gender inequality and social injustice. What are the experiences and challenges in enhancing the participation of women and sexual minorities in the development of energy communities in Latvia? Are there any strategies for promoting greater inclusivity? Do women play a significant role in the governance bodies of energy communities or other local energy projects?

KP: Currently, our legal framework for energy communities is still under development, so there aren't many fully formalised entities yet. We have some pilot projects, but these are more demonstrative than fully operational.

One major issue is the connection between energy systems and property management or household organisation. Traditionally, these areas are male dominated. It's typically men who hold positions in energy companies, and more men pursue studies in energy-related fields. This gender imbalance is reflected in how households are managed and how energy systems are governed.

From a regulatory standpoint, there isn't a specific focus on gender aspects in the current framework. We have a proposal that municipal-led projects should include provisions for sharing benefits with vulnerable citizens, defined primarily by income level rather than gender. While there's some recognition of the need to address inclusivity, especially regarding income disparities, the gender aspect hasn't been a major focus. This might change with more grassroots pilot projects, but it's unlikely to be addressed at a policy level in the immediate future.

BK: Can you shine a light on any successful local energy projects in Latvia? I'm aware of some municipal investments. Have they been successful? Do you have any case studies you can share?

KP: Yes, indeed. One notable success story is the largest solar thermal district heating system in the region, inaugurated in 2019, located in a municipality near Riga. This project was spearheaded by a local energy company that's strongly committed to renewable energy resources and decarbonising their energy systems. They started with a large solar thermal plant and have since integrated other technologies, including solar panels and industrial heat pumps.

Remarkably, this project is managed by a woman who heads the District Heating Association, making it a standout example of municipal-scale innovation and female leadership in the renewables sector. Although it's not an energy community project

per se – being municipally owned rather than community-driven – it exemplifies communal energy initiatives aimed at benefiting citizens. In the town of Salaspils, the new district heating system will lead to a significant decrease in the local utility company's reliance on natural gas by increasing the share of renewables in its energy consumption by 35%. Solar thermal energy will provide 20% of the total thermal energy transferred in the system.

BK: Thank you for sharing this fascinating case study. Now, let's shift to policy and legal development. You mentioned that regulations on energy communities are still under development. Have any draft bills been published yet? If so, how do you assess the proposed changes aimed at facilitating energy community development in Latvia? Additionally, what are the goals of Latvia's energy policy regarding energy communities? Are they highlighted in strategic documents or somewhat overlooked?

KP: The regulatory framework for energy communities is indeed still under development. To date, no fully implemented energy community projects have been publicly reported or realized. The current focus is on pilot projects and demonstration initiatives.

The proposed regulations aim to create a supportive environment for energy communities by addressing key barriers such as access to grid infrastructure and financial incentives. However, the effectiveness of these changes will depend on their implementation and the level of support from policymakers and stakeholders. In terms of strategic goals, energy communities are recognised in Latvia's energy policy documents, but their prominence varies. The National Energy and Climate Plan highlights the importance of decentralising energy production and increasing citizen participation in renewable energy projects. However, specific targets and detailed strategies for energy communities are still being developed.

Overall, while energy communities are considered important, they're not yet a central focus of Latvia's energy policy. The ongoing development of the regulatory framework and successful pilot projects will be crucial in shaping the future role of energy communities in the country's energy landscape.

BK: How are the ministries in Latvia addressing this issue? Have they created any public funding mechanisms to support local energy projects and other renewable energy initiatives?

KP: There will be further discussions with stakeholders and inter-institutional coordination, so the current version of the regulation isn't final. We've had a lower-level framework in place since early 2023, but it's remained inactive without the necessary regulations. Now, with the Ministry of Climate and Energy established at the beginning of 2023, there's a dedicated focus on climate and energy issues. However, they face challenges and a packed agenda, contributing to the delays. The regulations for energy communities and energy sharing are crucial for activating several public funding programmes.

In terms of funding, there are a few programmes planned for energy communities. One significant source is the Modernisation Fund, which will have a dedicated funding stream for mostly municipality-led energy community projects. Another potential source of funding is the Cohesion Policy, although the exact details are still unclear. Given the current grid capacity issues and the saturation of large-scale solar energy projects, the state is unlikely to fund additional purely solar energy generation projects, even if they're community owned.

However, this doesn't mean energy community projects aren't feasible. Future projects might focus more on coordinated demand and self-consumption rather than just generation. The design of these projects will depend on the final regulatory framework, which is still being negotiated. Overall, while there are mechanisms and potential funding sources, the success of these initiatives hinges on finalising the regulatory details and aligning them with available resources and grid capacities.

BK: Do all major political parties in Latvia support the development of energy communities and renewable energy? What are their views on this matter?

KP: The amendments to regulatory framework, adopted in 2022, garnered significant interest in parliament. The commission responsible for these issues showed considerable support, largely due to concerns about energy independence. Although this topic has become slightly less prominent, energy policy remains crucial for Latvia.

Latvia has a strong narrative of being a leader in renewable energy within the EU, boasting the third-highest share of renewables in final energy consumption. However, our renewable energy sector is predominantly based on forest biomass, making it heavily wood based. In the electricity sector, hydropower plays a significant role, with several large hydropower plants on the Daugava River owned by the national energy company.

The challenge lies in diversifying into wind and solar energy. Wind projects are scarce, with many still in the planning stages and not yet operational. Consequently, the share of wind energy in our electricity mix is extremely low. Although there has been a solar energy boom, it hasn't reached optimal levels, leading to imbalances in prices and unfulfilled expectations.

Support for a renewables-based energy system exists among political parties, but it lacks the optimism seen in neighbouring Lithuania. This is mainly because our wind energy sector hasn't yet realised its potential. Overall, while there's political backing for renewable energy, the practical implementation, especially for wind projects, remains a significant hurdle.

BK: Thank you for this. Let's move to the final question. What do you think about the future of energy communities, citizen energy and local energy in Latvia? What are the biggest challenges in Europe regarding citizen participation in the energy market? Additionally, what's the grid infrastructure like in Latvia? In Poland, for example, we have issues with old infrastructure and distribution operators frequently not

approving new renewable energy installations due to technical limitations. How does this situation compare to Latvia?

KP: The future of energy communities in Latvia, I believe, looks promising, although there are significant challenges ahead. I'm optimistic about it, but it's important to note that participation often hinges on the economic ability of individuals. These inherent economic disparities persist, and the transition to a more inclusive energy market won't necessarily transform the existing social or economic structures. Those who have more financial resources and property have better opportunities to participate, despite facing some barriers like finding the best offers or solutions.

Innovation and active participation in the energy market will largely depend on individuals' knowledge and willingness to explore new opportunities, propose ideas, and convince others of their viability. However, I'm not confident that we'll see a substantial stream of public funding directed specifically at new community energy projects. The government tends to maintain a levelled market approach, treating all parties equally, which can be problematic because not every participant in the energy market has the same capabilities or resources. Larger, more advanced companies often have an edge over smaller players or community initiatives.

Regarding grid infrastructure, Latvia has its own set of opportunities and challenges. We have significant reserve capacities that exceed the national demand several times over, indicating that there's technically a lot of space for new renewable energy projects. However, this capacity is often reserved for projects that aren't yet operational and may never be realised. This creates a paradox where there's theoretically enough space, but practically, it's not always available for new projects.

For smaller installations, especially in urban environments, there are generally fewer constraints. The application process for installations up to 50kW can be quite fast and efficient, often taking just a few days. This ease of application is a positive aspect. The grid's current extra capacity is partly a legacy from Soviet times when Latvia had a larger population and a more industrialised economy. While this historical infrastructure provides some advantages, it also means that the grid requires significant upgrades to meet modern needs.

We have a couple of promising projects funded by the Recovery Facility, focusing on enhancing digital infrastructure and developing EV charging stations. However, our Distribution System Operator (DSO), similar to many others, is reluctant to develop specialised IT systems for energy communities. They provide the necessary data but expect retailers and communities to manage their own calculations, billing, and internal management processes. This reluctance can be a significant hurdle, as it often forces community projects to rely on retailers, which can undermine the autonomy and community aspect of these initiatives.

BK: Yes, the situation is quite similar in Poland regarding the distribution operating systems and the cooperation with energy communities, which is one of the biggest challenges for the development of energy cooperatives. It seems that Latvia and

Poland have a lot in common in this regard. Thank you, Krista, for this insightful interview.

KP: Thank you, Bartłomiej. It was a pleasure to discuss these important issues with you. I hope our conversation sheds some light on the potential and challenges of energy communities in both our countries, which share a post-communist legacy.

HOPE FOR THE DEVELOPMENT OF ENERGY COMMUNITIES IN SERBIA

INTERVIEW WITH JELENA NICOLIĆ (ELEKTROPIONIR)

Julia Potrzebowska: I'm Julia from CoopTech Hub. Unfortunately, we didn't have a chance to meet in Prague, though I met your colleagues Dushan and Dragan. Thank you for agreeing to this interview. It's very important to hear about the situation of energy communities in Serbia. I'd like to ask you about the impact of the Soviet communist legacy on the energy communities in Serbia. Are people keen to participate in these kinds of projects? What are the main barriers and opportunities for using this experience to promote citizen energy in a post-communist country like Serbia?

Jelena Nicolić: Yes, well, when it comes to cooperatives, they're still quite strong in Serbia, but are usually focused on agriculture. Regarding energy, there are only two energy cooperatives in Serbia so far. People aren't familiar with the term "energy cooperative." They don't know such things exist, but when they hear about it, they're usually quite surprised in the beginning. When we talk to older people, they find it interesting because they're familiar with agricultural cooperatives. Energy communities are a completely new concept for both young and old people. We're trying to raise awareness about it to show that such a thing is possible.

JP: Do people have negative thoughts about building cooperatives because of memories from the Soviet communist period, or do they have positive feelings about the cooperative movement?

JN: So far, I haven't met anyone who's against the idea. People can be sceptical at first, but usually, they're supportive once they understand it. There are only two energy cooperatives because when you start something new, you have to deal with the bureaucracy. One of our goals is to create a field for future cooperatives to grow. I hope we'll have more than two registered cooperatives by the end of this year.

JP: From what year could you legally register an energy cooperative? Is there a legal provision for it?

JN: There's no specific law for energy cooperatives or communities yet. We registered under the general law about cooperatives, choosing energy as our field of work to become the first energy cooperative.

JP: Are there any benefits to being an energy cooperative if there's no legal framework?

JN: We're a group of enthusiastic people who want to change the system, which still relies on fossil fuels and centralised energy systems. We're aiming to start democratising and decentralising our energy system. We're not focused on financial benefits; we just want positive change. If we start this change, everything else will follow. An amendment to the law on the Use of Renewable Energy Sources about renewables mentions energy communities, but with little detail. We hope to make energy sharing possible in Serbia one day. Currently, we face many barriers, like waiting for over a year for approval to connect a solar plant to the public grid.

JP: Could you elaborate on some obstacles or legal regulations that may support or hinder the development of energy cooperatives in Serbia?

JN: General support is really important. Energy cooperatives are recognised by law but only as a definition without any support. We're learning by doing, often without knowing how to proceed. It can be stressful because you can complete a project and then be told that you lack the necessary licences. The lack of a clear legal framework and support are significant obstacles. There are also financial barriers for citizens.

JP: How do people generally find money for this type of investment?

JN: We're starting a new project with crowd investment to install solar panels on a school roof. This project can't share electricity among members yet, but it can sell electricity and provide financial feedback. In Serbia, there are programmes to help individuals to become prosumers by installing solar panels with subsidies covering half the costs. However, there's no national support for energy communities. We work on projects with organisations like UNDP, GIZ or HBS.

JP: What action is your organisation taking to push for legal changes for energy cooperatives and communities?

JN: We try to engage with every stakeholder by discussing energy communities in media and public discussions. We stay active, advocating for support and legal changes. So far, we have realised the Solarna Stara project with significant local support, in the municipality of Pirot. In this case, local authorities, like energy managers, have been very helpful and supportive.

JP: Can you share a success story of establishing an energy cooperative?

JN: One of the projects we're most proud of is Solarna Stara. We wanted to work in a protected nature area that had been devastated by small hydropower plants. We started a crowdfunding campaign for two villages, Temska and Dojkinci, to install solar panels on roofs of local community buildings. We successfully raised funds and engaged the local community. This project shows how united citizens can support good ideas and benefit local communities. We're still waiting to sell our first kilowatt hour, but we recently signed an agreement with a supplier. The total income during the lifetime of the power plants will go to the local community for their projects.

Following the successful completion of initial projects, Elektropionir proceeded to establish an agrisolar power plant (Solar Harvest), which is the first of its kind in the country. Located on an organic farm in Gornja Bukovica, central Serbia, the total capacity of this installation is 17.5 kWp. Once operational, the revenue generated from selling the electricity will contribute to the cooperative's future projects.

JP: What role do women play in citizen energy, and is energy poverty a significant issue in Serbia?

JN: Female participation in energy is growing, though the sector is still male dominated. The practice has shown us that previous energy solutions were based on using fossil fuels and were male dominated. Innovative solutions require a new approach, so the equal inclusion of women and men is extremely important to create justice in the energy transition. Therefore, energy cooperatives are essential for a just energy transition, incorporating diverse perspectives to find the best solutions. Also, shar-

ing electricity is important for addressing energy poverty. Energy communities can benefit society by combating energy poverty.

JP: Yes. So, what are your thoughts on the future of energy communities in Serbia? And could you summarise the major challenges faced by cities and participants in the energy market in Serbia?

JN: I'm optimistic about the future of energy communities in Serbia. I think all it takes is one successful example that fully embodies the concept of energy communities. Our initial crowd investment project might be challenging initially to convince people to invest their money. However, once we achieve our first success story, I believe momentum will build, and it will become something amazing. Serbia has a strong sense of community, and I believe energy communities are an excellent place to start. Together, we can overcome any challenges we face.

In terms of challenges, Serbian cities struggle with infrastructure readiness and the regulatory frameworks that support energy community initiatives. Participation barriers include financial constraints, lack of awareness, and bureaucratic hurdles. However, we've seen progress with concepts like prosumers, where citizens have increasingly engaged in energy production and consumption. This grassroots movement demonstrates the potential for broader citizen involvement in shaping the energy market.

JP: After discussing various obstacles, it's good to end the interview on a positive note for the future. Thank you very much for this interview.

JN: Thank you, can't wait to read the report!

BUILDING RESILIENCE – THE JOURNEY OF ENERGY COMMUNITIES IN UKRAINE

INTERVIEW WITH VIKTORIIA VOSTRIAKOVA
(SUSTAINABLE DEVELOPMENT AGENCY SYNERGY)

Bartłomiej Kupiec: Viktoria, thank you for agreeing to this interview. It's crucial for us to hear about the situation of energy communities and citizen energy in Ukraine. As I mentioned, we're preparing a publication with Heinrich Böll Stiftung on energy communities in Eastern Europe, and we want to include insights about the impact of the Soviet communist legacy on these communities. Do I have your consent to record this interview? Additionally, are you aware that this interview will be included in the upcoming publication?

Viktoriia Vostriakova: Yes, of course.

BK: Thank you very much. I'll stick to the script as per our guidelines. Let's begin with the first question. What's the impact of the Soviet communist legacy on energy communities in Ukraine? Are people eager to participate in these kinds of projects?

VV: The situation is very similar to all post-Soviet countries. When we talk about cooperatives or cooperation, society generally has a negative perception due to past experiences. Initially, we shared the European understanding of energy cooperatives in our project, but within a year, we shifted to discussing energy communities. We found that people were hesitant to get involved in cooperatives because of the negative associations from the Soviet era.

BK: So, cooperatives and other non-profit endeavours are seen as remnants of anarchy from the Soviet Union, is that correct?

VV: Yes, but it's mainly because people were forced into cooperatives in the past. Now, when we talk about energy communities and energy cooperatives as one of their forms, it's crucial to emphasise that participation is voluntary. People must know they have a choice, which is vital when advocating for these initiatives.

BK: What about women's participation in such projects? Do women take part in citizen energy projects? Does the legal framework in Ukraine have any required quotas for women's involvement in the governing bodies of energy communities?

VV: We don't have any required quotas as such in our legislation. However, in the three years of our work, more than 70% of participants in various events have been women. This indicates that women are very interested in these initiatives in Ukraine. This trend will likely increase, especially since a lot of men are on the front lines. Women are increasingly involved in managing all aspects of life here.

BK: That's interesting to hear. Are these women from low-income households or the middle-class or is it hard to say?

VV: They're mainly from the middle-class. They're often community leaders, academics, and businesswomen, so they're not typically from low-income populations.

BK: Okay, thank you. Let's discuss the legal framework in Ukraine. Does Ukraine have a legal definition of an energy community? If so, what does it look like?

VV: We have a legal definition only for energy cooperatives, which was adopted in our legislation in 2022. Before that, cooperation was primarily limited to agriculture. Last year, following the cancellation of the Green Tariff as a financial instrument for renewable energy sources, we started developing new legislative forms. The energy cooperative became one of these forms and is now legally recognised.

BK: So, the energy cooperative is a separate legal definition to an energy community. Okay, that's similar to Poland, that's interesting. Please tell me more about these energy cooperatives. Where can they be established, who can participate and what are the benefits for people joining such cooperatives?

VV: Honestly, we only have the definition of an energy cooperative. All other details you asked about fall under the general law of cooperation and other cooperatives. This includes agricultural cooperatives, service cooperatives, and others. For energy cooperatives specifically, there's little beyond the definition in our law. Thus, we rely on the broader cooperative legislation. A cooperative can be established with at least three participants and can be either for-profit or non-profit. For example, you can form a production cooperative if you produce something. Alternatively, if you're collaborating with other farmers, it would be a service cooperative. In this way, you can register your cooperative as a non-profit organisation, serving only its members. The goal is to make services easier or cheaper for all members.

BK: But why is it cheaper? As far as I understand, energy cooperatives have no supportive scheme. So, what are the benefits of joining an energy cooperative?

VV: Currently, we view energy cooperatives as a grassroots approach to decentralising our energy system. Given that our energy infrastructure has been severely damaged by Russian missile attacks in recent months, the motivation is clear: people want reliable access to electricity and heat. Ukraine is a large country, and managing its energy needs centrally is challenging. Energy cooperatives allow communities to produce their energy for local needs, which really helps the government and ensures a reliable energy supply for the people.

BK: The Russian aggression and attacks on Ukraine have spurred people to seek alternative energy sources, demonstrating their resilience in the face of war and the resulting energy shortages.

VV: Additionally, electricity prices have doubled since 1 June. I expect prices will continue to rise over the next year.

BK: Are these price increases because of the war?

VV: Not directly because of the war but due to the damaged energy generation infrastructure. The system needs to be prepared for winter and this has driven up costs, which is why every Ukrainian now has to pay more.

BK: And how many energy cooperatives are there in Ukraine? Are they registered somewhere? There's potential for growth and improvement in the energy cooperative system.

VV: We have one registered energy cooperative, which is fully recognised and supported by a USAID project. This was in Lysychansk, which is now an occupied territory. It was a purely energy cooperative. We also have two other examples. One of them is *Sonichne Misto* (Solar Town) in Slavutych City, near Chernobyl. Its original organisational form could be more collaborative, however, it's something different.

BK: What would it be?

VV: I'll try to translate it.

BK: A food association?

VV: No, it's more like a consumer association, something like that.

BK: A consumer association. Okay, I got it.

VV: This consumer association does exist. However, they faced issues at the beginning of 2022 with paying dividends due to problems with our Green Tariff. Our guaranteed buyer was unable to pay the full amount. Although the situation improved

somewhat last year, my latest information is that Solar Town was still unable to pay dividends to its members. We also had another registered energy cooperative, but it isn't operational.

BK: Why isn't it working? Does it lack an operational installation?

VV: Yes, it was initiated by the mayor of a village as a union of several farmers, functioning similarly to a consumer cooperative. However, when the mayor lost interest, the other participants also quit. It was registered but never became operational, meaning that it never had the necessary equipment or facilities to start producing energy. We have an open registry for all legal forms of enterprises and entities.

BK: Okay, so currently, four energy cooperatives are registered. That's a good start. So, let's talk about the barriers for energy cooperatives and other energy communities to be developed and be successful.

VV: We have a lot of those. Cooperation is rare in Ukraine. There are cultural and mental barriers; many Ukrainians need help to share resources or collaborate extensively, preferring individual ownership of money and property. This is the first significant barrier. However, at a summer school we hosted recently, we discussed the idea of energy communities with representatives from various communities. Surprisingly, they were more interested in the concept of energy communities than in energy cooperatives.

BK: Why is that? Is it because of the name?

VV: Yes, partly. We present energy communities as something distinct from energy cooperatives. It's about leadership, independence, and ownership. People realise that national resources like wind and sun are their property and can be utilised locally. They're excited about this idea, especially when we share experiences from other countries. They like that it's not a government-imposed initiative but a community-driven business project that can generate affordable energy and other benefits for the community.

Regarding other barriers, legislation is a significant one. We've established a mentoring group with high-level experts in various energy fields. Despite this, navigating our complex legislative environment is challenging, even for them. We have laws on cooperation, different forms of cooperatives, a separate energy law, and a law on renewable energy sources. Combining all these is difficult, even for experienced lawyers. Another significant barrier is bureaucracy. Additionally, the distribution network operators are owned by different people in different regions (Oblenergo).

BK: That's the transmission and distribution network?

VV: Yes. The worst part is that many of these entities were owned by Russians. We now have a huge problem because, despite the government's policy of nationalising

strategic infrastructure, we don't know how many Russian affiliates still hold positions.

BK: Wow, I hadn't heard about that. It's shocking.

VV: It was a significant issue during Yanukovych's presidency. You can imagine that all our strategic power plants and infrastructure were sold to Russians.

BK: It's unbelievable that such strategic infrastructure was in the hands of Russians for so many years. I have a question regarding the distribution system operators and energy cooperatives. Are they eager to cooperate with them or not?

VV: I wonder if they're even aware of such possibilities.

BK: Okay, so it's essential to note that when the energy cooperative movement began between 2016 and 2019, distribution operators didn't even know what an energy cooperative was.

VV: When this movement starts to gain momentum, they'll view us as troublemakers or competition.

BK: Is Ukraine working on energy law, renewable energy, and citizen energy communities to align with EU directives?

VV: The fourth energy package has been partially adopted into Ukrainian legislation but is yet to be fully implemented. Last year, we heard that our *Verkhovna Rada* (Parliament) representatives had started discussing energy communities, but nothing substantial has happened.

BK: What's the Verkhovna Rada's attitude towards energy communities and renewable energy? Do political parties in Ukraine support these initiatives? If so, why, and if not, why not?

VV: Most parties support renewable energy, but not all articulate it because it may not be their primary focus. Promoting renewable energy among citizens is challenging because, until now, electricity prices have been low. The failure of the Green Tariff last year also contributed to public scepticism. However, many private households have started taking measures for their energy security, realising the upcoming winter will be tough.

BK: Will the winter be brutal due to high energy prices and damaged infrastructure?

VV: It'll be challenging primarily because of the potential absence of electricity, not just the prices.

BK: Let's discuss energy poverty in Ukraine. Has it increased because of the war? Who's most affected by energy poverty – women, men, or specific demographics? In Poland, for instance, divorced or widowed women living in rural areas are most affected. Also, is there a legal definition of energy poverty in Ukraine?

VV: I'd need to check about a specific legal definition. We have studies on energy poverty, and I can send you the relevant information if there's a specific act. Traditionally, we didn't have a division based on gender or age because we had sufficient generating facilities, including nuclear power plants, and we often exported energy to Europe. However, the current situation is challenging for everyone.

VV: Our government has even suggested that people should consider moving to the countryside for the winter, as it's easier to heat a cottage than a large apartment block.

BK: That isn't easy because not many Ukrainians have cottages in the countryside, so this might not be feasible for many people. Are there any governmental initiatives to boost energy communities in Ukraine? Does the government provide financial or mentoring programmes or run information campaigns about energy communities?

VV: Our organisation has been working on this for two years. We've conducted various activities involving people, but no significant governmental or national-level initiatives exist. There are some local initiatives. For example, in the Vinnytsia region, the municipality has grants for businesses to install solar energy systems to make

their operations independent of the central energy system. We also had grant programmes for municipal buildings like hospitals, kindergartens, and schools, primarily funded by foreign donors and managed by non-governmental sectors. Given the recent changes, governmental initiatives might start soon due to the pressing circumstances.

BK: From my understanding, energy sharing hasn't yet been defined in Ukrainian law. Has the full-scale Russian aggression influenced people's behaviour regarding energy?

VV: Last year, when we faced electricity shortages, people started sharing energy themselves using generators – not from renewable sources, but diesel generators. They began sharing electricity with neighbours in need. It was an organic response driven by necessity.

BK: Human need is a powerful motivator, especially when there's a shortage of energy. Let me ask two final questions. First, does Ukrainian law encourage vulnerable consumers to join or partner with energy communities? For many vulnerable consumers, such as energy-poor households, participation in energy communities can be challenging due to membership fees. Does the current legal framework address this issue?

VV: As I mentioned, our legislation only defines energy cooperatives and still needs a legal definition for energy communities. Consequently, there needs to be a specific legal support framework to help vulnerable consumers join energy communities. A lot of work is required to establish such a dialogue. Last year, we initiated two public conversations, and soon, I'll be able to share our focus group research involving different experts with you. Last year, our parliament adopted some changes to the law on renewable energy sources, introducing the definition of an active consumer. You're familiar with this concept?

BK: Is the concept of the active consumer from your legislation?

VV: Yes, exactly, along with elements of net billing and similar provisions. This new framework should make it easier to develop energy communities. For example, individuals can now establish their generating systems but will need consumers for their electricity, as feeding all the electricity into the grid isn't always possible. This situation creates a win-win scenario, fostering the establishment of energy communities comprised of producers and consumers, or possibly several consumers. This framework holds promise for positive development in our energy sector.

BK: Okay, and the last question: What's your perspective on the future of energy communities and citizen energy in Ukraine? What are your thoughts on their prospects?

VV: We have a lot of work ahead of us, but there's also a lot of motivation to develop. Our highly centralised energy system has been severely damaged, and rebuilding it quickly requires substantial support from the government and local communities. The government must recognise the importance of supporting community-led initiatives to accelerate this process. People are becoming increasingly interested in models emphasising leadership, independence, and entrepreneurship rather than the cooperative models of the past. This shift in mindset is crucial for successfully developing energy communities in Ukraine.

BK: That's an excellent summary of the entire interview. Thank you very much for your time. Stay strong during these challenging times for your country. *Слава Україні! (Glory to Ukraine*!)

VV: *Героям слава!* (Glory to the heroes!) Thank you. Bye.

FINANCING ENERGY COMMUNITIES IN POLAND – EUROPEAN FUNDS

INTERVIEW WITH KRZYSZTOF MROZEK (POLISH GREEN NETWORK)

Julia Potrzebowska: Thank you, Krzysztof, for agreeing to this interview. It's crucial to hear your perspective on the situation of energy communities and energy in Poland. Currently, as I've already explained, we're preparing this publication about energy communities in Eastern Europe with HBS. I'd like to ask you about energy communities and the impact of the Soviet communist legacy on energy communities in Poland. So, let's start with the first question. What do you think the impact of the Soviet communist legacy is on energy communities in Poland? Are people eager to participate in this kind of project? And what are the main barriers and opportunities to using this experience to promote citizen energy in a post-soviet country like Poland?

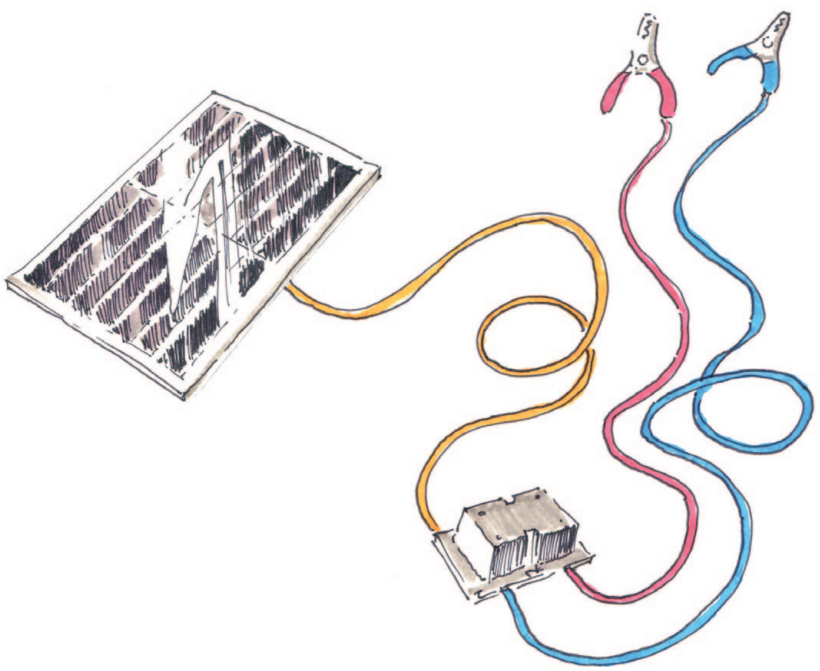
Krzysztof Mrozek: Thanks for this question. I think that communism was all about cooperation and collective work, but it was just at the narrative level. People were forced to cooperate and pushed into some collective initiatives that they didn't want to participate in. And we saw in the 90s that the whole idea of some grassroots cooperation was compromised because of the Soviet communist legacy or the Soviet communist experience. We can see it in the example of various cooperatives in different areas that started to be created in the interwar period, and people were eager to cooperate, establish cooperatives and create some social enterprises together. But during Soviet communist times, only the name remained, while the whole mechanism of cooperation between people was somehow captured by the government.

And people didn't have a say in these kinds of enterprises like cooperatives; what they wanted to do or achieve. And of course, there was a lot of pressure for people to cooperate. Though some of them wanted to do it, I think in general, society had a really bad experience during the Soviet communist times because of this authoritarian approach and making people cooperate and spend their free time doing something they didn't want to do, like some of the social initiatives; cleaning parks or something on Saturdays. Some people wanted to do it, some people didn't. But everybody was forced to do it.

So, we see it both in research and sociology, but we see it in practice, in everyday life, that in the 90s, there was a huge atomisation of the society, and people just wanted to focus on their family, their private life, making money, and not really wanting to cooperate. And this completely different way that social states, welfare states like Scandinavia and Germany did it without a Soviet communist regime pushing them to do it. And we see that there's much more willingness to cooperate in other countries that didn't have this Soviet communist experience. So, I think this legacy of communism is rather undermining the movement or the willingness to cooperate than facilitating it. Despite the official approach of the Soviet communist government, these are people who are behind all activities. It was the apparatus of the state.

So, I think the starting point in Poland for energy cooperatives, and energy communities, is similar in a way to other countries of the region, but more complicated or just worse than Western or Northern European countries that weren't part of the Soviet communist camp and were on the other side of the Iron Curtain, where trust between people is higher. Also, the thing that we should note is that because in the Soviet communist economy people were poor and couldn't get the stuff they needed officially, they were forced to use their unofficial contacts. There were a lot of monopolies and corruption, and this is something that doesn't build trust between people.

So, we entered democratic Poland bringing the very difficult baggage of a lack of trust, lack of willingness to cooperate, lack of experience and a lack of social bonds and structures. The social movement was mostly concentrated around the Catholic



Church, which became very radical in the 90s. And a lot of people who were like, you know, meeting the others, cooperating with them, basing it on the church structure, and didn't want to do it anymore. So, yes, I think that's the answer to your question. A long story short, the Soviet communist experience is undermining the process of building social bonds in Poland.

JP: Yes, I agree with you, even though we're from different generations. I've observed mostly negative associations with the Soviet communist period. Let's move on to a different topic. As you're a programme manager for European climate funds, I'd like to ask you about European funds for energy communities. How do these funds support the development of energy communities in Europe? Are there any EU funding programmes available for establishing energy communities in Poland?

KM: The good news is, yes, there are European funds to establish energy communities in Poland. But maybe, first of all, let's say why we need these funds, because we don't need much funding now for individuals like you and me to install solar panels on our roofs. After all, it pays for itself very quickly. So, when a company or an individual takes out a loan or invests their savings into having solar panels or energy storage, they'll save money on energy bills. And this pays off.

But when we're talking about energy communities and look at how relatively new the concept is in Poland, that we don't have many success stories, nor do we have success stories of larger grassroots energy communities that are operating, produce energy, reducing people's energy bills, and building social bonds in the local community, and so on, we see that incentives and financial incentives are needed. The bureaucratic process is difficult.

When you or we want to save money on energy bills, in most cases, creating an energy cooperative isn't the most obvious thing we'd would consider, in my opinion. We'd rather explore installing solar panels on our roofs, maybe changing the tariff for energy, installing a smart meter, whatever. Anything other than having to reach out to our neighbours. How many neighbours do you know in your building? Let's be realistic, how strong are the bonds with the neighbours in the village, in the rural areas? They're maybe a bit stronger, but still, in Poland, reaching out to your neighbours, to people from your community, to do something together isn't the first thing people will do. Though, it's changing, it's improving. I think that the crisis when we had a big influx of refugees when the war in Ukraine started and people came together to help them, is maybe a starting point or a milestone on the way to building more community relations in Poland. But still, this is problematic.

So, we need incentives for people to think about reaching out to their neighbours and not talking about the weather, but about how we can make savings on energy together. There was a problem with the legal framework, but it's been gradually improved. However, as we both know, it's still not perfect in Poland. But you can establish an energy cooperative, register it and you can now apply for funding. And this funding is available, or let's say it's at least earmarked now. It's guaranteed in certain financial circumstances that I'll discuss in a moment. There's either

a dedicated pot of funding for energy communities, or energy communities are eligible to get funding under a wider renewable energy funding scheme. However, the rollout of these programmes has been significantly delayed.

We're almost halfway through the EU budget for 2021–2027. We're now in mid-2024 and there's hardly any call for proposals for energy communities right now. Let's say that the front runner in Poland in terms of financing energy communities is the Recovery and Resilience Plan where now, after amendments to the plan, almost 200 million euros is available for energy communities. It was initially less than 100 million, but thanks to the recommendations of organisations, NGOs, cooperatives, and experts, the government almost doubled the allocation. There's now 192 million euros available for different types of collective energy production. Energy cooperatives are one of them, but the smallest. Energy clusters are prioritised, which are business entities or local self-government initiatives.

Anyway, there's funding available, the first call for proposals has been launched and we see that the interest among energy cooperatives has no impact in them being selected for support, which is because the procedure is difficult. You need a lot of documentation, even for this kind of pre-investment support and you need to be quite advanced in your energy cooperative development. So, that's the first thing. And it's, let's say, a pilot programme. Although it's not formally a pilot as it covers all of Poland. It has quite a big budget, but it's the first one. So, we learned from this experience to provide for better calls for proposals in other EU funds. The other opportunity available for energy cooperatives is the Modernisation Fund, which is another separate channel that receives funding from the EU-level ETS (Emissions Trading System).

So, the ETS, where polluters pay for permits to emit greenhouse gases, the fees they pay for allowances mostly go to the state budget, but some of them are done at EU level. And from this money, the EU funded a Modernisation Fund, with Poland being the largest beneficiary. The programme that has been initiated in Poland is currently called Energy for the Countryside. With a budget of over 200 million euros, it's the largest support scheme. However, we saw that the majority of funding went to biogas production, which is expensive. So, not that many projects were accepted, and the small grassroots citizens energy cooperatives didn't receive any funding. And we also have a lot of structural funds programmes in Poland, 24 in total.

JP: Are there state funding programmes to support the energy communities in Poland?

KM: State funding? No, there's only EU funding. So public EU money goes to energy communities. I'm not aware of any state-funded programmes that are funded by the state. What's more, these EU programmes require co-financing. So, the beneficiary needs to invest, let's say 30% or 20% of their own money into the project, and they'll then get 70 or 85% of EU funding. And we recommend that the state covers the remaining part, so that no personal contribution or co-financing is required. But there's a long path ahead of us in terms of achieving this.

JP: It's good to hear that there are European funds available for energy communities. Energy cooperatives are described as the dark horse of energy transition. This means that they often play a crucial but underestimated role in driving the transformation of the energy sector. Do you think that the Polish government and authorities recognise energy cooperatives as something crucial in the process of energy transition?

KM: Well, I'd say that after many years of work and advocacy by not only the Polish Green Network but many organisations involved in the modern energy movement, the government is aware that energy communities are an important factor in the energy transition. I'm not 100% sure that they see them as a cornerstone of the transition. They focus on larger infrastructural investments that are also needed for energy communities, like energy grid modernisation. Without a modern energy grid, the energy communities won't be able to connect and function fully.

So, yesterday we had a meeting, the annual meeting on the Recovery and Resilience Plan with the Polish Ministry of Development Funds and Regional Policy and the European Commission. And the government representatives didn't mention energy communities as the key feature or the key investment of the Recovery Plan. But when we brought it up, they agreed that it's an important issue and an important investment. But I'm not sure that the government views energy communities to be as important as we see them. But they accept that apart from playing an important role in energy transformation as such, they also play an important role in building social resilience, which is connected to security concerns that the current government raises regarding the war just across our eastern border, and the government's willingness to redirect EU funds into security investments.

And it's not only digging trenches or buying tanks but also horizontal investments with horizontal impacts, like energy communities that have an impact on decentralisation of the energy system, which is good in terms of any kind of invasion or cyberattack, they build local resilience, they make people get to know each other and they reduce the risk of the energy system being switched off with a single attack. So, we see that the government is increasingly recognising the important role of energy communities in the system, but we're not at the point that they would say, okay, we want to be like Denmark, and we won't have wind energy being produced by citizens. We're not there yet. And the state-owned energy companies are, I think, too powerful to easily step down from their monopolist positions.

JP: Okay, you mentioned a few obstacles or examples of provisions that are currently in Poland; I'd like to explore this a bit more. How do current legal regulations and political policies either support or hinder the development of energy communities in Poland? And what changes are suggested or necessary to support this development?

KM: I think they hinder them. If you have a group of citizens who want to come together and produce energy, replacing the state that has always had the responsibility of providing energy to the people, the state should do everything it can to support

them and to make it as easy as possible. In Poland, there was a delay in implementing international standards, and when we started, we overregulated the different types of energy communities that are allowed in Poland. And even the experts get mixed up with this, not to mention just regular citizens. If you take the Renewable Energy Act or if you get any guidance, guidebook, whatever, you'll see that there are so many options that you need to decide on, and you don't have to be an energy expert or engineer to be able to establish an energy community.

And yes, I think that's it. I mean, the law is making things too complicated. One of the arguments we make is that energy cooperatives should be allowed in urban areas, not only in rural and rural-urban ones. In Poland, we have 2,500 municipalities; most of them are rural, but we have, I think, over 800 cities in Poland. Some people also wish to come together and produce energy, but they don't have the legal instruments to do it. So, the system should be liberalised to the maximum extent possible. This would guarantee the security, stability, and accountability of these initiatives.

JP: It's unbelievable that the biggest cities in Poland are excluded from forming energy cooperatives. And despite these many obstacles and challenges, could you share with us some success stories or examples from the citizen energy sector in Poland?

KM: Yes, of course. I mean, the biggest success is that over a two- or three-year period, we jumped from two registered energy communities to 35. This is due to many factors, one of which is the availability of funding. When it was announced that the recovery funding would finance energy communities, people were like "ah, finally, we have the opportunity to apply for funding." The other was increased awareness of this form of cooperation, legal changes and energy communities gradually appearing as success stories. We don't have many of these, which I think this is what is hindering the creation of energy communities, that we don't have a full-blown success story, and can interview people who've been in an energy community for years, who are really satisfied, and are telling their stories and encouraging others.

But we do have examples of energy communities, mostly with the local government participating, even at our conference last week about energy communities. There were representatives from the local government from southern Poland who said that their energy bills were finally starting to go down and they would recommend that others establish an energy community.

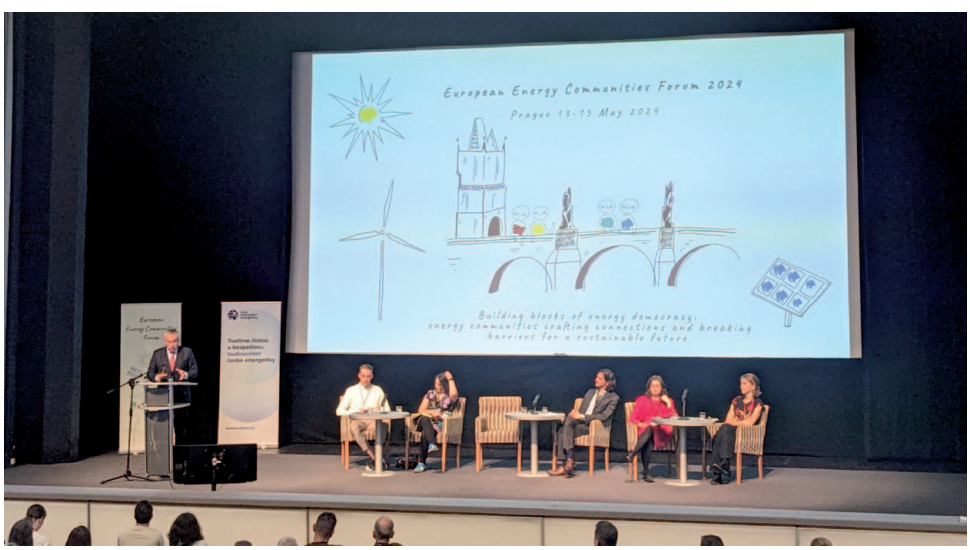
JP: Yes, I think this sums up our interview very well, and I think it actually concludes all the questions I prepared and the topics to discuss during the interview. So, I feel we've had a comprehensive discussion. Thank you again for this, for your time and for this interview.

KM: Thank you very much. Looking forward to reading it.

AFTERWORD: REFLECTIONS ON THE ENERGY COMMUNITIES AND EASTERN EUROPEAN PAST

BARTŁOMIEJ KUPIEC,
DIRECTOR OF THE ENERGY TEAM IN COOPTECHHUB

The report "Energy Communities and the Legacy of Post-Socialism" has extensively explored the emerging energy communities in Central and Eastern Europe, set against the backdrop of the region's intricate historical legacy. Through in-depth interviews with key experts who participated in the European Energy Communities Forum 2024 in Prague, the research has illuminated the prevailing influence of the Soviet communist era on current opportunities and challenges in energy transition. The centralised governance and state-controlled energy monopolies that were characteristic of the Soviet communist period have profoundly impacted public perceptions and institutional practices, complicating efforts to shift towards a more decentralised and participatory energy model.



European Energy Communities Forum in Prague 2024

A significant insight from this work is that, despite formal adherence to EU directives, many Central and Eastern European countries have yet to establish regulatory frameworks robust enough to support the full development of energy communities. The superficial transposition of EU law into national legislation has resulted in a fragmented regulatory environment, lacking the clarity and consistency necessary for the widespread adoption of energy democracy. Public policies in the region still often prioritise centralised energy solutions, over decentralised, community-driven renewable energy initiatives. Limited collaboration between municipalities, distribution system operators (DSOs) and local energy communities poses a serious challenge, as citizen-led initiatives are seen as potential disruptors to the status quo rather than partners in achieving energy security and sustainability. This perspective, coupled with low public awareness and insufficient policy support, further isolates these communities, and hinders their growth.

European Energy Communities Forum in Prague 2024

As we look forward to the future of energy communities across Central and Eastern Europe, it's imperative to address the regulatory environment necessary to implement energy sharing effectively. Significant steps towards it have recently been made in Czech Republic, however it's just the first step in the path to significant revolution in the model of electricity market. It's still unclear if communities participating in energy sharing won't be discriminated against, whether they'll have truly free access to real-time data, and what the electricity allocation will look like going forward. It's not enough for energy sharing to be merely a theoretical concept enshrined in legal texts; it must be supported by a robust and actionable policy framework that ensures its practical viability.

A key requirement is the development of an equitable framework for cost, tax, and network charge allocation and compensation within energy sharing schemes in energy communities, ensuring alignment with the principles of energy justice. Such a scheme must be designed to avoid discrimination among market actors, prevent distortion of competition and eliminate the cross-subsidisation associated with energy sharing. All parties involved must operate on a level playing field where energy-sharing costs and benefits are equitably distributed.

In addition, it's essential to clearly define the rights and obligations of individual parties involved in energy sharing while mitigating the administrative burden that could arise from such regulations.

Despite these substantial challenges, the emergence of energy communities in Central and Eastern Europe represents a vital move towards just energy transition. Energy democracy, which promotes active citizen participation in energy production and management, ensures an equitable and inclusive transition. However, realising the full potential of energy communities will require significant effort to overcome regulatory, institutional, and sociological barriers. This includes the development of stronger, more coherent regulatory frameworks that fully incorporate EU directives. But equally important is the need for proactive public policies that support rather than hinder these initiatives, underscoring the urgency and importance of this support[1].

As you reflect on the insights and case studies presented in this publication, consider the diverse experiences of energy communities across the region. The narratives presented underscore the complexities of navigating the post- Soviet communism legacy. They also highlight the transformative potential of energy democracy as a cornerstone for a fair and resilient energy future in Central and Eastern Europe. Understanding and empathising with these diverse experiences is crucial for an inclusive and successful energy transition.

1 Walker, Gordon & Devine-Wright, Patrick, (2008). Community Renewable Energy: What Should It Mean? Energy Policy. 36. 497–500. 10.1016/j.enpol.2007.10.019.

NOTES ON AUTHORS

Ervin Kaçiu – Researcher. Ervin has a PhD in political and cultural sociology. He has taught political sociology and social theory in various public and private universities in Albania. In 2018, he joined the Institute of Anthropology, Albanian Academy of Science as full-time researcher, focusing on anthropology of minorities and diaspora. Author of the forthcoming book *An Anthropology on poverty and marginalization: The Case of Roma minority in Albania* and many scientific articles. Over the years, Dr Kaçiu has conducted fieldwork and quantitative research in Albania, Israel, Italy, and Kosovo. He has acted as a consultant for various international and local civil society organisations for many years. Dr Kaçiu's areas of academic interest include anthropology and sociology of minorities, anthropology of vulnerable groups, political anthropology and sociology, genealogy of ideas and political thought and modernity.

Bartłomiej Kupiec – Manager of the Energy Team at CoopTechHub. A lawyer and climate policy analyst, Bartłomiej holds a master's degree in law from Jagiellonian University. He is also a graduate of the Master of Public Policy programme at the Hertie School in Berlin, the American Law Programme organised by The Catholic University of America and Columbus School of Law in cooperation with the Jagiellonian University, and the German Law School organised by the Rheinische Friedrich-Wilhelms-Universität Bonn in cooperation with the University of Warsaw. He is currently preparing his doctoral dissertation at Jagiellonian University. He has collaborated with leading Polish, German, and international law firms, consulting companies, think tanks and government institutions. He is the author of scientific and journalistic publications on the energy sector and climate policy.

Julia Potrzebowska – Energy Communities Specialist at CoopTech Hub. Julia is responsible for developing energy communities and securing funding for them. She is currently pursuing a master's degree in Sustainable Development at the University of Copenhagen. She is dedicated to fostering local initiatives and communities that align with global trends and sustainable development goals.

NOTES ON INTERVIEWED EXPERTS

Kristiyan Dimitrov – Energy Communities Campaign Coordinator at Greenpeace Bulgaria. Kristiyan is responsible for coordinating campaigns related to energy communities, promoting citizen energy practices, and advocating for renewable energy solutions.

Márton Fabók – Coordinator of the Transzformátor Community Energy Facilitator team of the Solidarity Economy Center. He has been promoting a democratic energy transition in Hungary for over a decade through both academic research and activism.

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Anna Michalčáková – Communication Specialist for The Community Energy Union. Anna is part of the Responsible Energy team at Frank Bold, and as an analyst, she advocates for renewable energy as being the right path for the Czech Republic. She has a degree in European Studies and International Relations and has spent several years working in this field and as an analyst on European legislation in the field of agriculture and the environment. She has been involved in the implementation of several Ministry of Agriculture grants and two political campaigns for the ODS (Civic Democratic Party) candidates and has written a number of articles for Euroskop.cz.

Jelena Nicolić – In her academic work, she explores the potential for implementing energy transitions, analyses future climate-neutral energy systems, and contributes to raising awareness and knowledge about the concept and importance of sustainable development, a just energy transition and renewable energy sources through discussions with students. As an active member of the Elektropionir Energy Cooperative, she aims to empower citizens to become active participants in this process by developing community solar power plants.

Lena Penšek – Campaigner at Greenpeace. Her interests include renewable energy, energy communities, wind energy, NGOs, civil society, activism, climate change mitigation, climate change adaptation, community living, degrowth and many more.

Krista Petersone, PhD – Renewable Power Systems Coordinator. She specialises in various aspects of the energy transition, with a focus on energy communities, wind farm planning and electricity markets.

Eszter Úr – Junior Associate at the Solidarity Economy Centre, which supports and builds solidarity economy ecosystems in Hungary.

Viktoriia Vostriakova, PhD – Viktoriia has a genuinely interdisciplinary background, having studied management of foreign economic affairs, and worked in the State Ecological Inspection and Vinnytsia National Agrarian University as a scientist and administrative staff. In 2021, she became a cofounder and CEO of the NGO Sustainable Development Agency "SYNERGY" that draws attention to the principles of sustainable development in Ukrainian civil society and advocates it in the public sector.

Krzysztof Mrozek – Program Manager for European Funds for Climate. A political scientist by education and experience. Author and co-author of publications on Eastern, visa, and environmental policies. Krzysztof previously worked at the Embassy of Poland in Minsk, the Stefan Batory Foundation, and the Think Tank Visio (Finland). Member of the team for energy transformation at CEE Bankwatch Network. He represents PZS in monitoring committees for European Funds (including the Partnership Agreement Committee 2021–2027) and advisory bodies of the European Commission (such as the European Community of Practice on Partnership [EcoPP] and Cohesion for Transitions [C4T]).

ENERGY COMMUNITIES AND THE LEGACY OF POST-SOCIALISM

The report *'Energy Communities and the Legacy of Post-Socialism'* was written by hbs Warsaw in collaboration with CoopTech Hub, with support from the hbs offices in Prague, Tirana, Thessaloniki, Belgrade, and Sarajevo. It presents a collection of interviews with participants of the European Energy Communities Forum. The forum, held in Prague from 13 to 15 May 2024, was organised by Rescoop and Unie komunitní energetiky. The report includes interviews with representatives from Central and Eastern Europe and the Balkans, including Poland, the Czech Republic, Hungary, Ukraine, Latvia, Bulgaria, Slovenia, and Serbia. It highlights the complex relationship between the legacy of communism and approaches to energy communities, exploring challenges such as legislative barriers and technical issues while also showcasing success stories and opportunities. Through interviews with experts and practitioners, the report seeks to promote energy communities as a democratic and sustainable solution to today's energy challenges.

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