



Diagnostic Report

Current Status in Terms of Preparation, Development and Operation
of Energy Communities in Czech Just Transition Regions

Ostrava, June 2023



TABLE OF CONTENT

1. Introduction.....	3
2. Summary of contents	4
3. Methodology	6
4. Legal framework.....	9
4.1. Legislation at European Union level	9
4.2. Legislation at national level	10
4.3. Implications of current and planned legislation on the establishment and operation of energy communities.....	12
5. Institutional framework for supporting energy communities in the Czech Republic.....	13
5.1. State and local government.....	13
5.2. Electricity and thermal energy producers	14
5.3. Distribution networks operators	16
5.4. NGOs and initiatives	17
5.5. Technical assistance.....	18
6. Financial framework.....	20
6.1. National instruments.....	Chyba! Záložka není definována.
6.2. International instruments.....	27
7. Socio-economic framework.....	31
7.1. Description of the overall situation on the Czech energy market	31
7.2. Priorities and interests of producers, distributors, suppliers and final consumers of energy.....	31
8. Description of existing barriers and driving forces for the creation and development of energy communities in the Czech Republic.....	33
8.1. Description of barriers, risks and possibilities for their elimination.....	34
8.2. Description of driving forces	37
9. Description of the action plan and its key measures for facilitating and accelerating the establishment and development of energy communities.....	39
10. Summary of key findings and recommendations for further outputs	48
List of Tables	51
List of Figures.....	51
List of Sources.....	52
List of Abbreviations.....	54

1. INTRODUCTION

The aim of this diagnostic report is to describe and analyse the key aspects for the establishment, development and operation of energy communities in the Czech Republic, with a particular focus on regions eligible for funding from the Just Transition Fund (hereinafter Just Transition regions).

The analysis considers legislative, institutional, coordination and socio-economic framework as well as a specific focus on the financial framework, and financial instruments available for supporting energy communities.

The main output of this report is expressed in the form of key barriers and drivers which affect the development and functioning of energy communities in the Czech regions of Just Transition.

This report seeks to help monitor and better inform the activities of Czech government and ministries to eliminate barriers and stimulate drivers for the creation of energy communities through concrete actions/action plan.

Moreover, this report forms part of the knowledge basis of the activities carried out within the project "Supporting Energy Communities in Czech Regions of Just Transition". The gained knowledge is to be disseminated during information sessions and will set the basis for the development of a handbook on "How to establish, effectively develop and operate energy communities in Czech regions of just transition" to be shared during a series of tailor-made workshops.

2. SUMMARY OF CONTENTS

This chapter describes the initial findings of the analysis of all relevant aspects of state of the establishment and development of energy communities in the Czech Republic, including a roadmap of actions for further development.

It can be concluded that the establishment and activities of energy communities in the Czech Republic and its Just Transition regions are currently influenced by the following factors:

1. **Barriers to the establishment and development of energy communities outweigh the drivers**, amongst them are identified the absence of a **new legislation** and the inadequacy of the **current one**, the **mentality and thinking** of local people with regards to energy communities, the **absence of smart metering systems**. **Absence of energy data centre** for monitoring consumption and production rates and **weak low voltage networks** also offset the uptake of energy communities in the Czech context.
2. The preparation of the subsidy programmes to support energy communities is **more advanced than the process of preparing the missing legislative documents** (in particular Lex RES 2 and 3), which is highly likely to cause a number of technical, organizational, commercial and other related legal problems for communities that already exist or are currently being established. This is true for both now (due to the existing legal vacuum) and when the missing legislation comes into force.
3. As part of the upcoming legal standard Lex RES 2, a restriction of the activity of energy communities to a **maximum of 1,000 collection points or electricity production units** in the contiguous territory of the administrative districts of no more than 3 municipalities with extended competence or in the territory of the capital city of Prague is being prepared. This is a technical limitation given by the rounding of measured values. These restrictions are only temporary until the Electric Power Data Centre (EDC) is fully operational – this plan was consulted and accepted by the Chamber of Renewable Energy. This approach was also approved by the European Commission.
4. **Weak low-voltage grids** - this is another of the important obstacles that prevent the development of energy communities on a wider scale, as it will be very difficult for capacity reasons to share surpluses of electrical energy between members of the communities, especially in warmer periods - also in this sense, the planned restrictions of the activities of the energy communities within the framework of the upcoming Lex RES 2 (see point 3) do not appear to be essential, whereas the problem of weak low-voltage networks can be solved by having each energy community building an energy management system and its own electric energy storage, allowing them to lease part of the capacity to the distribution company, which in return will offer the community a lower energy price. Measures to increase the capacity of networks for connecting RES are addressed from the National Recovery Plan. A total of CZK 7 billion is earmarked for this. Legislative measures are also being sought, e. g. to prevent speculative connection requests.
5. **Smart electricity meters have not yet been introduced** anywhere in the Czech Republic. Anyone who applies for a continuous meter will receive it for a fee (selective roll-out of intelligent electricity meters is planned from 1/7/2024 to 30/6/2027 in consumption points with an annual consumption of over 6 MWh at the low voltage level), according to LEX RES 2 each consumption point that will participate in sharing will receive a continuous meter at the cost of the distributor, the Energy Data Centre (EDC) is in the process of preparation - from the effective date of LEX RES 2 it will ensure data exchanges for sharing (albeit in a temporary solution that will have certain limits), together

with it, the establishment of an Energy Digital Platform (EDP) is also being considered - without these elements, it is not possible to measure and evaluate energy surplus flows or to share mutual experiences in this area at the national level, due to these limitations, existing energy communities can from technical point of view to operate only in a limited provisional regime.

6. Setting up upcoming **grant programmes and financial instruments** to support the establishment and development of energy communities - a very broad portfolio of grant programmes will be available (the first call in the Modernisation Fund - Komuenerg programme is expected in autumn 2023), and considerations are underway, whether these programmes will support only the investment phase or also the operational phase - the prevailing recommendation is to support only the investment phase due to the need for energy community leaders to set up viable economic models and to subsidise the operational phase only in exceptional cases based on specific criteria for a limited period of time for smaller energy communities that will not be able to cover their operational costs initially; it is also expected that repayable financial assistance instruments (concessional bank interest and guarantees, in particular from the EIB), which are inherently more appropriate for ensuring the economic sustainability of energy communities, will be overlooked by a wide range of less risky subsidy schemes.
7. The importance of **understanding the economic benefits** of energy communities in the long term by its members – members of the communities may tend to cancel memberships because of all-year-round stable prices which may happen to be higher than the market prices in summer. Therefore, there is a need for targeted and systemic education and awareness raising among all relevant target groups (citizens, public institutions, companies).
8. Despite the challenges described above, it is certainly advisable to **support the process of establishing and developing energy communities** – their socioeconomic benefits are not negligible for all relevant target groups, their activities will contribute to the reduction of CO2 emissions in their place of operation, the energy self-sufficiency and security of their members will increase, the activities of these communities will have other follow-up social benefits and a wide portfolio of subsidy programmes and financial instruments of repayable assistance will be available for their establishment and development.
9. Chapter 9 describes an **action plan** with possible interventions (including their prioritisation) that would help address the barriers described above - these possible interventions will be discussed in detail in the next phases of the project and incorporated in an updated form in other follow-up deliverables (final report/policy recommendations, guide to establishing energy communities). Among these possible interventions, there is the need for a more **comprehensive system of education to support the establishment** of energy communities, the **reinforcement** of low voltage networks, the speeding up of the process to install and acquire **smart meters** in energy communities, support for effective and high-quality preparation and implementation of new legislation and the establishment of **energy data centre**.

3. METHODOLOGY

The methodological approach to this diagnostic report consists of an analysis of relevant information gathered through desk research and complemented/validated via stakeholder semi-structured interviews.

The data collected was organised and analysed in a comparative fashion with the target of developing tailor-made recommendations to policymakers in the Czech context to favour the establishment of energy communities.

It is underlined how the team undertook a constant feedback loop with both the client and Steering Committee of the project to ensure consistency and cooperation to achieve the desired results. Below, the step-by-step methodological procedure followed is presented.

1. Elaboration of the assessment framework(s)

The first step of the analysis consisted in characterising the information to be investigated and gathered. This exercise was adopted from the country assessment framework¹ developed in the H2020 COME RES, where a series of fundamental legal elements were analysed in order to provide a picture of the state-of-the-art of the enabling framework for energy communities in Member States.

The team first adopted the question and topic list, then identified relevant sources of information to be analysed and stakeholders to be consulted. Based on the identified stakeholders the information was collected in Czech or in English.

The main areas of investigation were identified:

- The current legal framework for the establishment and operation of energy communities at EU and national level
- The institutional framework for supporting energy communities in Czech Just Transition regions (including all relevant institutions at national, regional and local level, energy producers and distributors, their competences, responsibilities and interlinkages in the field of energy communities)
- The financial framework to identify and evaluate all relevant subsidy programmes (European, national, regional) and repayable financial instruments (European Investment Bank programmes, National Development Bank, etc.) to support the establishment, development and operation of energy communities in the Czech Just Transition regions.
- The socio-economic context of high electricity and heat prices, the request for energy independence, security and reduction of CO2 emissions for environmental protection.

2. Desk research and identification of sources and literature (documents) review

Guided by the questions of the assessment framework the team proceeded to:

- Identify relevant sources of information.
- Identify relevant stakeholders to interview to complement the desk research.

These parts of the second methodological step were always accompanied by a constant feedback look with both DG REGIO and the Steering Committee.

¹https://come-res.eu/fileadmin/user_upload/Resources/Deliverables/COME_RES_Deliverable_7.1_Comparative_assessment_report.pdf

In fact, the project team presented both the list of sources and of potential interviewees to the abovementioned actors to gather approval and further comments and suggestions.

Finally, this constant feedback process allowed the project team to better tailor the research to the specific objective of the assignment enriching the data collection with additional knowledge and fundamental insights.

3. Data validation and complementation via stakeholder interviews

Based on the desk research carried out, an interview guideline was developed as a mean to complement and complete the research exercise. The interviews allowed the researchers to gather insights and informed opinions from the relevant stakeholders on the most suitable and feasible actions to enhance and support the development of energy communities in Czech Just transition regions.

The following stakeholders were preliminarily selected, validated by the client and Steering Committee and then interviewed:

- Ing. Martina Krčová, MBA (Energy Regulatory Office, member of the board)
- Mgr. et Mgr. Wojciech Belch (Czech Technical University in Prague, Head of Research Team Participatory Planning and Design)
- Mgr. David Blažek (Community Energy Union, lead coordinator)
- Ing. Patrícia Čekanová, Ph.D. (Association of Community Energy of the Czech Republic, director)
- Ing. Vladimír Skalník (Energy Centre of the Ústí Region, director)
- Patrik Pizinger (mayor of Chodov and member of the Karlovy Vary Region Council)
- Mgr. Petr Kubiš (mayor of Sokolov)
- Ing. Rostislav Rožnovský (Moravian-Silesian Energy Centre, director)
- Ing. Jiří Krist (Energy Community within LAG Opavsko, chairman)
- Mgr. Petr Karlubík (energy community within the LAG Jablunkovsko, senior employee for implementation of SCLLD, RDP, OPTAC, OPE, EnCoLAG)
- Prof. Ing. Stanislav Mišák, Ph.D. (Technical University of Ostrava, director of CEET)
- Doc. Ing. Jan Novotný, Ph.D. (Jan Evangelista Purkyně University in Ústí nad Labem, associate professor)

4. Data analysis

The project team proceeded to analyse the identified documents and data collected via semi-structured interviews following a qualitative content analysis approach. The approach relies on “condensing raw data extracted from a formal and superficial document analysis into specific categories or themes based on valid inference and interpretation” (Zang, Y. and Wildemuth, M., 2016, p. 2), in the specific case of this diagnostic report, the researchers divided the data collected into the following categories for each of the framework identified under point 2:

- Legal provisions
- Institutions responsible for development of energy communities
- Support schemes available
- Electric market infrastructure and grid connection

The abovementioned categories served to orientate the researcher within the analysis, but also to prepare the knowledge basis for the following steps of the analysis.

5. Development of Action Plan and policy recommendations

The categorisation of the data allowed the identification of the relevant barriers and drivers for the establishment of energy communities in the Czech context.

This exercise was tailored to identify and propose measures for the removal of the barriers and stimulation of the drivers. The measures were then incorporated into an action plan that includes the different actions in detailed accordingly to the following information:

- Name of intervention
- Description of activity(ies)
- Responsible organisation and (eventual partners)
- Budget
- Financial source
- Timetable
- Key milestones
- Outputs and results

In the final chapter of the report a detailed summary of all relevant key findings and recommendations for the elaboration of further outputs in the framework of the project "Supporting Energy Communities in the Czech Regions of Just Transition" is provided. Specifically, this includes the preparation of information seminars and workshops and the development of a final report/policy recommendations and a handbook on how to establish and successfully run energy communities in Czech regions of Just Transition. A brief description of all the key findings is provided in Chapter 2 - Executive Summary in the early part of the document. The final version of this diagnostic report was subject to further revision and feedback from the client and Steering Committee before finalisation and submission.

An overall overview of all the process followed to develop this report is presented in the image below.

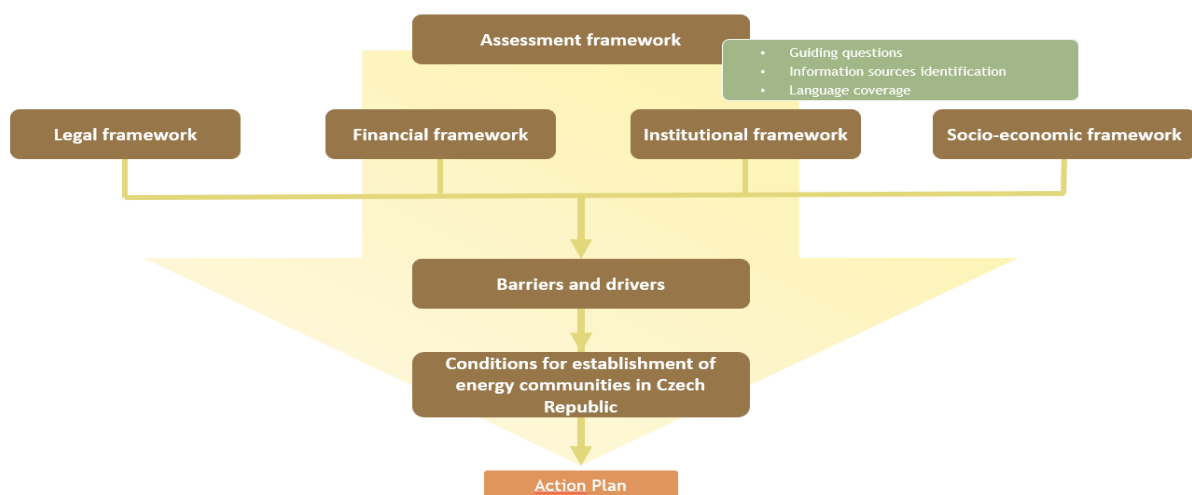


Figure 1: Scheme of the methodological procedure for the preparation of the diagnostic report

4. LEGAL FRAMEWORK

4.1. Legislation at European Union level

In December 2018, the Revised Renewable Energy Directive 2018/2001/EU (RED II) entered into force. RED II being part of the legislative package enshrined in the Clean Energy for all Europeans Package, contributes to raise the EU's overall target for the share of renewable energy to 32% by 2030. In July 2021, the Commission proposed a further revision in the form of the draft Directive COM/2021/557 final, which, building on the targets contained in the European Green Deal, proposes further developments to accelerate the deployment of renewable energy in the EU to 32% by 2030, including accelerating the authorisation of renewable energy deployment. In May 2022, the Commission proposed in its Communication on the REPowerEU Roadmap (COM/2022/230 final) to further increase this target to 42.5% by 2030.

Another relevant piece of legislation at European level is Directive (EU) 2019/944 on common rules for the internal electricity market (IEMD). This Directive sets out, among other things, how Member States, regulators and transmission system operators will cooperate to create a fully interconnected internal electricity market that enhances the use of electricity from renewable sources, free competition and security of supply. It also encompasses clauses creating the legal framework for citizen energy communities. This legislative act is also important in terms of its transposition into national legislation in order to facilitate energy transfers within the energy communities, both within the territory of the Member States and across borders.

The two directives, RED II and IEMD, include clauses and create the legal framework for the establishment and operation of renewable energy communities and citizen energy communities respectively as well as obligations on Member States to reduce barriers for energy communities and promote their establishment (Table 1). As the directives need to be transposed into national legislation, each Member State can choose its own way to achieve its RED II and IEMD obligations, either by drafting new legislation or by updating existing legislation.

Element	Renewable Energy Communities (RED II)	Citizen Energy Communities (IEMD)
Activities	Electricity generation, consumption of self-generated electricity within the community, storage, sales, and aggregation.	Possible to become distribution system operators either under the general regime or as closed distribution system operators: efficiency services or charging services for electric vehicles or to provide other energy services to members or shareholders.
	Opportunity to advance energy efficiency at household level and to help fight energy poverty through reduced consumption and lower supply tariffs	
Purpose	To provide environmental, economic, or social community benefits for its shareholders or members or for the local areas where it operates rather than financial profits.	
Participation	Open and voluntary and including cross-border participation	
	-	The IEMD specifically points out that members or shareholders of a CEC are entitled to leave the community.

Energy sources	Renewable energy sources	Electricity. The IEMD does not specifically exclude any electricity generation technology. Meaning that potentially renewables, nuclear power or fossil fuels may be used.
Control	Shareholders or members, located in the proximity of the RE project, including natural persons, micro-, small- or medium-sized enterprises or local authorities, including municipalities. Should be capable of remaining autonomous from individual members and other traditional market actors	Members or shareholders who are natural persons, local authorities, including municipalities and small enterprises. Decision-making powers are only given to members or shareholders that are not engaged in large-scale commercial activity and for which the energy sector is not a primary area of economic activity.
Geographical Scope	Close proximity to the project	No geographical constraints: consumers can be supplied with energy without being in physical proximity to the generating installation
Rights and Obligations	Maintain the rights and obligations of the energy community members as customers	Maintain the rights and obligations such as freedom of contract, the right to switch supplier, the responsibilities of the distribution system operator, the rules on network charges, and balancing obligations.
Possible forms of entity	Any form of entity as long as it exercises and is subject to obligations defined by the EU legislation	Any form of entity, including associations, cooperatives, partnerships, non-profit organizations, and small- or medium-sized enterprises, as long as it exercises rights and is subject to obligations defined by EU legislation
Support schemes	Can benefit from incentives for collective self-consumption.	
	Can participate in available support schemes (investment aid, tax exemptions or reductions, tax refunds, and simplified permitting procedures for small RE installations) on an equal footing with large participants	No specifically mentioned support schemes for a CEC, however; since CECs can engage in electricity sharing, they can also benefit from related incentives.
Ownership of the electricity distribution network	Can use either a public network or a private distribution network in the ownership of its members	Entitled to own establish, purchase, or lease distribution networks and to autonomously manage them.

Table 1: Energy Communities under Directives REDII and IEMD

4.2. Legislation at national level

The main legal document in the Czech Republic is Act No. 458/2000 Coll., on business conditions and the performance of state administration in the energy sector and on the amendment of certain laws

(Energy Act), which has been amended several times. It sets the basic conditions for the use of renewable energy sources in the energy grids of the Czech Republic but does not include a specific definition of energy communities or a description of their purpose.

Also important is the Decree of the Energy Regulatory Office of the Czech Republic No. 404/2022 Coll., amending Decree No. 408/2015 Coll., on electricity market rules, as amended. It allows for electricity sharing in residential buildings, and in fact forms the basis for the operation of energy communities (based only on electricity sharing), but represents only a small part of the processes that need to be set up for the establishment and operation of energy communities.

Currently, the amendment to Act No. 458/2000 Coll., on the conditions of business and on the performance of state administration in the energy sector and on the amendment of certain laws (Energy Act) (Lex RES 2), which should be approved by the end of 2023. This document specifies in more detail the possible legal forms of energy communities, their activities, competences, obligations and rights. However, even Lex OZE 2 will not contain all the necessary regulations, for the reason that it deals with regulations of a technical nature in a limited way. In this legal norm, it is proposed to limit the number of transfer points in the sharing group, not the number of members of the energy community. There can be several such sharing groups in a community. In the first phase (until the EDC is fully functional), the sharing of electricity is limited so that in the period until June 30, 2026, the sharing group may include transfer points of no more than 1,000 take-off points or electricity production units, in the contiguous territory of administrative districts of no more than 3 municipalities with extended competence or in the territory of the capital city of Prague. For example, according to empirical experience from Austria, the average number of members sharing energy within communities is only 6, which is far below the planned limit. Limiting the scope of energy communities to the territory of municipalities with extended competence is in line with the European concept of energy sharing primarily in local territories. Both mentioned restrictions were discussed by the MPO with the Chamber of RES and the European Commission, which agreed to them. Among the alternative solutions in relation to the objective need to limit the activity of energy communities, especially due to the initial limited capacity of the Energy Data Centre and also weak low-voltage grids, it is also possible to mention the setting of restrictions on the intensity of energy sharing among members and thus not limit the essence of energy communities as such or their other activities, eventually, to favour short-distance electricity transmissions on low-voltage networks with a cheaper tariff, as is the case, for example, in Austria.

Lex RES 2 will be followed by Lex RES 3 (another amendment to Act No. 458/2000 Coll., Energy Act), which is in the initial phase of preparation. This establishes other conditions regarding the use, production, accumulation, flexibility, storage and aggregation of electricity and heat originating from renewable energy sources. As for the regulatory fees for the distribution of energy (both electricity and heat) coming from renewable sources within the energy communities, these are not subject to the Energy Act. However, they are subject to the tariff structure, which is under the responsibility of the Energy Regulatory Office and is reflected in the price decisions issued by this office. Last but not least, the document Lex RES 3 will also focus on technical conditions, rules and requirements regarding the management of energy surpluses, their storage and distribution in energy communities.

Based on the above, it is necessary to state that the Czech Republic has not yet transposed the mentioned legal norms (RED II and IEMD) into its national law, on the basis of which the European Commission initiated an infringement procedure with the Czech Republic².

² Infringement number: R(2021)0181 and R(2022)2033

4.3. Implications of current and planned legislation on the establishment and operation of energy communities

Based on a synthesis of all relevant information available in the existing and newly drafted legislation, two possibilities for the emergence of energy communities can be envisaged:

- Energy community,
- Community for renewable resources.

The legal forms allowed for the above types of energy communities are expected to be as follows:

- association,
- cooperative,
- another corporation whose internal relations according to the founding legal act are similar in content and purpose to the internal relations defined by law of an association or cooperative.

Due to the fact that energy communities should primarily be non-profit organizations, it is not possible to consider legal forms of limited liability company (Ltd.) and joint-stock company (Inc.) acceptable. On the other hand, in the upcoming legislation, it is intended that if the community has the form of a cooperative or other similar business corporation, it can, if the founding legal act allows, distribute a maximum of 33% of the profit and other own resources only among its members.

According to the currently valid legislation, all existing energy communities must hold an energy trading license issued by the Energy Regulatory Office, just like a regular energy company. However, it is possible (on the basis of Act No. 458/2000 Coll. and its amendment No. 131/2015 Coll.) from 1 January 2016 to operate an electricity production unit connected to the electricity system up to an installed power of 10 kW inclusive without a license, if there is not another license holder's electricity production unit already connected at the given point of consumption. In the legal standard Lex RES 1, this limit was increased to 50 kW. Amendment Lex RES 1 is effective from January 24, 2023.

Another issue is the intention to limit the scope of functioning energy communities in the Czech Republic. This intention is included in the current version of Lex RES 2. Sharing electricity is limited only in the initial phase, before the EDC is fully operational, and it is expected until June 30, 2026. Until then, the sharing group can include transfer points of not more than 1,000 demand points or electricity production units, namely in the contiguous territory of the administrative districts of not more than 3 municipalities with extended competence or in the territory of the capital city of Prague. A community can have several such sharing groups. Although these planned restrictions appear binding at first glance, it is necessary to take into account the fact that due to the limited capacity of low-voltage grids and the primary purpose of sharing energy locally (not remotely from an apartment in the city to a holiday cottage in the mountains), these limitations are not too fatal. Realistically, given the technical and financial possibilities of community members and the need to cope with the initial illnesses of energy communities, also from a legal point of view (after the entry into force of new legislation), etc., it is certainly more appropriate to start operating energy communities on a small scale. With the gradual cultivation of their activity and strengthening the low-voltage networks, it will definitely be possible to remove these limitations and expand the possibilities of action of energy communities later in the medium term.

5. INSTITUTIONAL FRAMEWORK FOR SUPPORTING ENERGY COMMUNITIES IN THE CZECH REPUBLIC

5.1. State and local government

This subchapter gives an overview over the regulatory actors that are relevant to energy communities in the Czech Republic. They are designing the legal framework and influencing the environment and regulations energy communities face.

5.1.1. Ministry of the Environment of the Czech Republic (ME CR)

The Ministry of the Environment of the Czech Republic is the body of supreme state supervision in environmental matters. Its main activities in relation to energy communities include mainly the issue of air protection.³ The Ministry of the Environment also manages a large part of the investment funds needed for climate change adaptation, energy modernisation and increasing energy savings in households (see Chapter 6). Because community energy involves the use of renewable energy sources that produce fewer greenhouse gases, community energy is a critical area of interest for the Ministry of the Environment and a key tool for addressing more than just the climate crisis.

5.1.2. Ministry of Industry and Trade of the Czech Republic (MIT CR)

In relation to energy communities, the Ministry of Industry and Trade of the Czech Republic is the central government authority for energy policy, trade policy, coordination and preparation of legislation and implementation of European law within the scope of the Ministry. In addition, this institution is responsible for overseeing the implementation of trade and energy inspections and ensures the negotiation of bilateral and multilateral trade and economic agreements.⁴ The Energy Section prepares the National Energy Concept and is responsible for the Energy Act.⁵ The Ministry of Industry and Trade is also the promoter of the amendments to the energy laws (Lex RES 1, 2 and 3) and the body in charge of formulating the definition of energy communities.⁶ Like the Ministry of the Environment, the MIT manages important investment funds suitable for the development of community energy. From the perspective of the MIT, the area is crucial in terms of reducing energy dependence, and community energy is therefore also mentioned in the update of the State Energy Concept 2050, where the strategic objectives are identified as expanding the concept of community energy and energy sharing, strengthening the capacity of the grid to connect RES and speeding up the connection process, and removing administrative barriers to RES development.⁷

5.1.3. Energy Regulatory Office (ERO)

The Energy Regulatory Authority was established in 2001 by the Energy Act, which also regulates its competences. The ERO's main competences include regulating the regulated components of energy prices, on which it issues price decisions each year. The price decisions also set support for renewable energy sources. The ERO also promotes competition in the energy sector, licenses and supervises

³ Act No. 2/1969 Coll.

⁴ <https://www.mpo.cz/dokument1926.html>

⁵ <https://www.mpo.cz/cz/energetika/>

⁶ <http://www.odbornecasopisy.cz/elektro/casopis/tema/ministerstvo-zivotniho-prostredi-podpori-komunitni-vyrobny-elektřiny--17469>

⁷ <https://www.mpo.cz/assets/cz/energetika/strategicke-a-koncepcni-dokumenty/2023/4/Vychodiska-aktualizace-Statni-energeticke-koncepcie-CR-a-souvisejicich-strategickych-dokumentu.docx>, p. 6-8

energy producers, traders and other energy actors and protects consumers in the energy market. It is also responsible for resolving disputes between consumers and their energy suppliers or distributors.⁸

Although the introduction of a full-fledged community energy system and the precise definition of energy communities are the responsibility of the Ministry of Industry and Trade, the ERO is able to exert a certain degree of influence in this area within its remit. An example of this is the amendment to the Decree on the Electricity Market Rules (404/2022 Amendment to the Decree on the Electricity Market Rules) by which the ERO has enabled a specific form of sharing. The Decree introduces a modification of the procedure for sharing the electricity produced in a residential building among its residents, whereby one leading point of consumption with electricity production and associated points of consumption can be established in the building.⁹

5.1.4. Regional governments

For counties, community energy can be an important tool for enhancing energy self-sufficiency, reducing energy costs, and boosting the local economy. As an illustration, the Moravian-Silesian Region commissioned an analysis of solutions to the current energy crisis and dependence on fossil fuels, which included plans for projects to ensure greater energy self-sufficiency. The plans talk about the possibility of installing solar panels on the roofs of regional buildings or roofs managed by the region and the creation of energy communities that could generate electricity and share it at the same time. In practice, this could then be a situation where, for example, a school would share the surplus energy produced by a photovoltaic plant on its roof with other buildings managed by the county. Another option is to involve the local population, which could also take or share the energy.¹⁰

5.1.5. Municipalities

Like counties, cities or municipalities can create energy communities that can provide similar benefits to those mentioned above. Energy communities can be created either by municipalities themselves or by municipalities in partnership with local people and local businesses. For smaller municipalities, combining several units into one community is also an option. In practice, a community can operate, for example, on the principle of producing and sharing energy from photovoltaic panels located on municipal buildings such as offices or hospitals or on the roofs of households. An example of a Czech municipality that has taken this route is Mikolajice, which is saving up to 30% of its energy by installing photovoltaic panels. Plans to install PV on municipal roofs are also currently underway in Brno and Prague. In the area of heat sharing, the example of Knezice in Nymburk, where the municipality sells heat cheaply to its residents with the help of a biogas plant, can be mentioned.¹¹

5.2. Electricity and thermal energy producers

This subchapter contains an illustrative sample of the leading producers of electricity and thermal energy in the Czech Republic. Their complete list is of course much broader, and the purpose of this subchapter is to provide a basic indicative overview of these producers, their market position and possible activities related to the introduction of energy communities.

⁸ <https://www.ero.cz/o-ero>

⁹ <https://oenergetice.cz/energeticka-legislativa-cr/komunitni-energetika-ero-vydal-navod-jak-postupovat-pro-sdileni-elektricke-energie-v-bytovem-dome>

¹⁰ <https://www.fbadvokati.cz/cs/clanky/8912-prukopniky-komunitni-i-lokalni-energetiky-jsou-samospravy-prekazkou-byla-dosud-byrokracie>

¹¹ <https://www.denik.cz/ekonomika/komunitni-energetika.html>

5.2.1. ČEZ

ČEZ, a. s., is an important energy group operating in Central and Western Europe and one of the largest companies in the Czech Republic. ČEZ, a. s., was founded in 1992 by the National Property Fund of the Czech Republic. The main activities of this company include production, trade and sales in the fields of electricity, heat, natural gas and coal mining. CEZ is the largest producer of electricity in the Czech Republic. The majority owner of ČEZ, a. s. is the Czech Republic, specifically the Ministry of Finance of the Czech Republic with a share of 69.78% of the share capital. The rest of the capital goes to private investors. In addition to the production of electricity and heat mainly from fossil sources, the company also focuses on the installation of modern energy technologies based on renewable sources (mainly photovoltaic power plants and heat pumps) for its clients from the ranks of companies, public institutions and households (through its subsidiaries focused on the field of renewable energy).

5.2.2. Veolia Energie CR

Veolia Energie CR, part of the French Veolia Group, is one of the most important Czech producers and suppliers of heat and electricity. It operates in the Moravian-Silesian, Olomouc, South Bohemia, Pilsen, Karlovy Vary, Ústí nad Labem, Liberec, Central Bohemia and Prague regions. Its customers include mainly electricity traders on the Czech market, large industrial enterprises, small and medium-sized companies and other organisations. In addition to the production of heat and electricity from fossil fuels, Veolia Energie CR is also involved in the introduction of smart grids and the supply of photovoltaics.¹²

5.2.3. Sev.en Energy

Sev.en Energy is an energy group engaged in the mining and production of lignite and the generation of electricity and heat from coal. It is the second largest electricity producer in the Czech Republic. In the Czech Republic, it owns the Chvaletice and Počerady power plants, Teplarna Kladno and Teplarna Zlín, and two North Bohemian lignite quarries. In the UK and Australia, it owns gas and coal-fired power plants and in the US it has a 100% stake in Blackhawk Mining. According to Sev.en Energy, the conventional method of energy production, on which it is largely based, is important in the transition towards renewable energies, which will be gradual and may have unforeseen impacts. In the renewables sector, the company is preparing five photovoltaic projects that are expected to add 130 MW of renewable generation capacity.¹³

5.2.4. E.ON Energie

E.ON is a German holding company operating in several European countries such as the Czech Republic, Benelux, Italy, Germany, Hungary, Romania, Sweden and the UK. It operates in the Czech Republic through E.ON Energie and EG.D. The company's main activities include the generation, sale and distribution of electricity and the sale and distribution of natural gas.¹⁴ As in the previous cases, the company is gradually introducing renewable energy technologies (mainly photovoltaic power plants).

5.2.5. Thermal power plant Brno

Teplárny Brno is a municipal company operating since 1930, when the first heating plant in Central Europe was built in Brno. The main business activities of the company include production of thermal energy, distribution of thermal energy, production of electricity, trade in electricity and trade in gas.

¹² <https://www.veolia.cz/cs/o-veolii/struktura-spolecnosti/energetika>

¹³ <https://iuhli.cz/sev-en-energy-vstupuje-do-solarni-energetiky/>

¹⁴ <https://www.ote-cr.cz/cs/statistika/mesicni-zprava-plyn/pocty-opm-dodavatelu?date=2023-01-01>

They also plan to operate photovoltaic power plants. Today, of the four plants connected to the central heat supply network (owned and operated by Teplarne Brno), they supply the vast majority of Brno companies, institutions and 100,000 households. They represent the fourth largest heating company in the Czech Republic and the largest consumer of natural gas. The Statutory City of Brno is the sole owner of the shares of Teplarne Brno.¹⁵

5.3. Distribution networks operators

This subchapter presents the most relevant distribution network operators in the Czech Republic. Distribution network operators are important for energy communities due to the dependency of energy communities on the network of these operators to share energy among members.

5.3.1. ČEZ Distribuce

ČEZ Distribuce a. s., a subsidiary of ČEZ, is the largest electricity distributor in the Czech Republic and the operator of the distribution system according to Energy Act No. 458/2000 Coll. The company was formed in 2010 from former regional energy companies and now operates in the regions of Pilsen, Karlovy Vary, Ústí nad Labem, Central Bohemia, Liberec, Hradec Kralove, Pardubice, Olomouc, Moravia-Silesia and partly in the Zlín region and Vysočina. The company's main activities include distribution of electricity, ensuring supply to customers, ensuring efficient management of distribution system assets and optimal management of the distribution system with regard to minimising losses and outages.¹⁶

5.3.2. CPTS

CPTS, or the Czech Power Transmission System (Česká elektroenergetická přenosová soustava – ČEPS), is the exclusive operator of the 400 kV and 220 kV electricity transmission system in the Czech Republic, based on an electricity transmission licence granted by the Energy Regulatory Authority under the Energy Act. The main activities of CPTS include reliable operation and development of the transmission system, transmission of electricity between producers and distributors, services related to ensuring the balance between production and consumption of electricity and support services. CPTS also provides cross-border transmission for the export, import and transit of electricity, thus contributing to the formation of a liberalised electricity market in Europe.¹⁷

5.3.3. EG.D

Distribution network operators also include EG.D of the E.ON Group, which is the operator of the electricity distribution system in the South Bohemia Region, Vysočina Region, South Moravia Region and Zlín Region, and a gas distributor in the South Bohemia Region, with E.ON supplying gas to nearly 259,000 customer points in August 2022.¹⁸

5.3.4. PREDistribution

PREDistribuce, a. s., was established in September 2005 as a subsidiary of Pražská energetika and is part of the PRE Group. PREDistribuce provides electricity distribution in the territory of the capital city of Prague and the town of Roztoky. It manages and develops the distribution network and provides other

¹⁵ <https://www.hytep.cz/platforma/clenove-platformy/teplarny-brno-a-s>

¹⁶ <https://web.archive.org/web/20190930145529/https://www.cezdistribuce.cz/cs/informace-o-spolecnosti/zakladni-informace.html>

¹⁷ <https://www.ceps.cz/cs/o-nas>

¹⁸ <https://www.ote-cr.cz/cs/statistika/mesicni-zprava-plyn/pocty-opm-dodavatelu?date=2023-01-01>

services related to electricity distribution, especially for low and high voltage customers and power producers.¹⁹

5.4. NGOs and initiatives

This subchapter gives overview over the most important initiatives supporting energy communities, initiatives and NGOs active in the field in the Czech Republic.

5.4.1. Local Action Groups (LAGs)

Local Action Groups are an independent community of citizens, non-profit organisations, private business and public administration. They work together to develop rural areas, agriculture and obtain financial support from national and European programmes. Their aim is to improve the quality of life and the environment in rural areas. In 2021, some of the LAG members in the country formed the Platform of the National Network of Local Action Groups for Community Energy. The role of this platform is to assist with the preparation of energy communities and specific projects, to analyse the needs of rural areas in relation to community energy, to monitor subsidy opportunities, to share experiences, to form partnerships and to lobby for policy and legislative requirements. For these reasons, the Platform is a major player in the development of community energy in the Czech rural area. At present, several dozen LAGs are involved in community energy, and it is expected that within a few years the majority could be involved.²⁰

5.4.2. Union for Community Energy (UCE)

The Union for Community Energy is an interest group founded by the Frank Bold Expert Group and the DUHA (Rainbow) Movement. The aim of the Union is to promote decentralised energy, to integrate community energy into strategic documents, to create and share know-how for the implementation of projects, to advocate for legislation that will support the development of local clean energy sources and to increase the share of local clean energy sources in energy production and consumption. The members of the Union are representatives of cities, regions and municipalities, local action groups, companies, professional associations and associations in the field of energy, environment or construction. Information services are provided to cities as part of the membership. The Union works through three working groups: legislative, subsidy and implementation. The legislative working group focuses on advocacy objectives in the form of law changes and monitors developments at national and European level and informs members of potential lobbying opportunities. The subsidy working group advocates for appropriate conditions in subsidy programmes based on the experience of its members and the implementation group engages and analyses different approaches to community energy.²¹

5.4.3. Association of Community Energy of the Czech Republic (ACE CR)

The Association of Community Energy in the Czech Republic (ACE CR) is a voluntary association of community energy supporters. The aim of this organisation is to achieve decentralisation of the energy sector, to create conditions for the emergence of energy communities and to raise awareness of community energy and the possibilities of using clean energy from green sources. ACE CR also brings together owners of community renewable energy sources to negotiate better conditions for them, to

¹⁹ <https://www.predistribuce.cz/cs/o-spolecnosti/o-nas/>

²⁰ <https://www.nsmascr.cz/o-spolku/ps-a-platformy/platforma-ns-mas-pro-komunitni-energetiku/>

²¹ <https://www.uken.cz/o-nas>

represent them at regional, national and international level and last but not least to provide them with up-to-date information in the energy field.²²

5.5. Technical assistance

This subchapter outlines the available sources of technical assistance for the establishment of energy communities. They offer information and guidance for the establishment of energy communities, as well as consultancy services for concrete projects.

5.5.1. EKIS

Energy Consultation and Information Centres (EKIS) are established under the state programme EFEKT, which is managed by the Ministry of Industry and Trade. EKIS provide free energy consultancy services to promote energy savings and renewable energy sources. These services can be used by citizens, public administration, enterprises and entrepreneurs. The services provided include the preparation of a tailor-made proposal for energy measures, recommendation of the appropriate subsidy programme for the needs of the client and administrative assistance with the application for subsidies. EKIS centres are represented in all regions of the Czech Republic. Apart from EKIS centres, there are also mobile M-EKIS centres that visit clients at their own property and an online i-EKIS advice centre.²³

5.5.2. EnCoLAGs

Energy Coordinators of Local Action Groups (EnCoLAGs) operate in various Local Action Groups. Their goal is to provide general education in the field of energy savings and renewable energy sources, subsidy assistance, coordination in securing the documents necessary for applying to national and European subsidy programmes and, last but not least, coordination activities in the preparatory phase of energy community projects. The energy coordinators are funded by the National Recovery Plan. LAGs can currently apply for a call for proposals and receive up to 150 000 CZK with a maximum of 100 % of eligible expenditures covered for the establishment of these coordination services.²⁴

5.5.3. Moravian-Silesian Energy Centre (MEC)

MEC was established in 2014. Its main purpose is to provide expert advice and energy services for the needs of the Moravian-Silesian Region, its contributory organisations and to provide advice to municipalities and the public in the field of energy savings. MEC is divided into five departments. The Energy Services Department deals with energy savings, energy studies and energy assessments, renewable energy sources, energy performance of buildings and high voltage optimisation. The Energy Management Department focuses on optimising the consumption area, the Clean Mobility Department specialises in the development of clean mobility in the Moravian-Silesian Region, the Coal Platform Department is responsible for ensuring a gradual transition away from fossil fuels and, last but not least, the Project Management Department ensures and coordinates the preparation and implementation of energy projects approved by the Moravian-Silesian Region.²⁵

5.5.4. Centre for Public Energy (CPE)

During the years 2023-2028, the Centre for Public Energy (CPE) will be implemented, which will fall under the aforementioned Moravian-Silesian Energy Centre. Its purpose will be to provide energy and

²² <https://akecr.cz/>

²³ <https://www.mpo-efekt.cz/cz/ekis/strediska-EKIS>

²⁴ https://www.mpo-efekt.cz/upload/6cd6d069e64a28ff10122424d61b29ea/vyzva-npo-6_2022_enko-mas_1.pdf

²⁵ <https://www.mskec.cz/>

clean mobility consultancy services to cities and municipalities within the Moravian-Silesian Region with the aim of transforming the energy sector in line with EU and Czech strategic commitments and documents. The CPE will also communicate with target groups from the Moravian-Silesian Region in the field of energy management, discuss proposals submitted by clients on optimal energy measures for buildings with a combination of different technologies, provide advice on the use of financial instruments, monitor trends, innovations and their implementation in practice and provide education to raise awareness of the need for energy transformation with regard to sustainable development and environmental and climate protection. Individual sites should be located throughout the region to be as close as possible to municipalities, towns and local action group headquarters to support investment in the territory and to assist in project design and preparation.²⁶

5.5.5. Energy Centre of the Ústí Region (ECUR)

ECUR was established in 2022 to implement the energy policy of the Ústí nad Labem Region. The activities of ECUR are mainly focused on reducing the energy consumption of public buildings, increasing the share of energy production from renewable sources and providing consultancy services in the territory of the region, especially for municipalities and cities, within the framework of the strategic project of the Transformation Centre of the Ústí nad Labem Region. In addition, ECUR is also involved in meeting climate goals, strengthening energy security, promoting the hydrogen and circular economy, collecting data on energy and water consumption and subsequent analyses, and last but not least, developing community energy in the region.²⁷

5.5.6. EU initiatives to support specifically energy communities.

European Commission (DG ENER) has launched several initiatives that set out to enhance the deployment of energy communities across the EU such as:

- **Energy Communities Repository** (2022 – 2024)
- **Rural Energy Community Advisory Hub** (2022 – 2024)

The main contributions to energy communities' deployment from these initiatives are as follows:

- Opportunity to network and gather information about each project under the RECAH and Repository framework.
- Sharing best practices and lessons learned among different energy communities.
- Technical assistance to support energy communities' projects in the initial phase of development. The assistance consists of an allocation of a number of expert day and was awarded via a call for application. Content-wise the support provided ranges from technical and infrastructure to communication, encompassing legal and regulatory assistance, knowledge sharing and capacity development and investment support.
- Representing the voice of citizens and energy communities to European policy makers

²⁶ <https://hrajemskrajem.msk.cz/centrum-verejnych-energetiku/>

²⁷ <https://www.ecuk.cz/poznejte-nas/>

6. FINANCIAL FRAMEWORK

This chapter provides an overview of the main financial mechanisms and technical assistance initiatives present at Czech and European level. However, not all of these options entail funding solely for energy communities projects, but rather feature building renovation and energy efficiency which are also connected to the establishment and function of energy communities.

6.1.1. Modernisation Fund

The Modernisation Fund is designed to finance the ten lower-income Member States of the European Union, including the Czech Republic, in their transition to climate neutrality. This fund is mentioned, among other things, in the 2019 Green Deal, which identifies it as one of the instruments that will contribute to the EU's transition to a more sustainable economy. The aim of the Modernisation Fund is to support investments in the modernisation of energy systems, to support the development of renewable energy sources, to decarbonise heating, industry and transport, to improve energy efficiency, to meet greenhouse gas emission reduction targets and, last but not least, to support community energy. Due to the wide range of areas supported and the specific focus on community energy, this programme represents one of the most important financial instruments for financing community energy development and related activities.

The Modernisation Fund draws its resources mainly from the monetisation of 2% of the total number of emission allowances in the EU ETS for the period 2021-2030, with the State Environmental Fund as the beneficiary and intermediary. Financial support for 2021-2030 in the amount of CZK 400 to 480 billion is available to representatives of the public and private sectors, municipalities, cities, local governments, small and large enterprises and individuals. Subsidies from the Modernisation Fund are distributed under 10 subsidy programmes:

- **HEAT - Modernisation of Heat Energy Supply Systems**
- **RES - New Renewable Energy Sources in the Energy Sector**
- **ENERG ETS - Improving energy efficiency and reducing greenhouse gas emissions in industry within the EU ETS**
- **ENERG - Improving energy efficiency in business**
- **TRANSCoM - Modernising transport in the business sector**
- **TRANSGov - Modernisation of public transport**
- **ENERGov - Energy efficiency in public buildings and infrastructure**
- **KOMUENERG - Community Energy**
- **LIGHTPUB - Modernisation of public lighting systems**
- **HOUSEnerg - Energy efficiency in the residential sector**

Of the above-mentioned subsidy programmes, the HEAT programme, which focuses on the modernisation of thermal energy supply systems, is of primary importance. There are currently two calls for proposals under this programme. The first is HEAT Call No. 1/2022 - Heating Plant Upgrades (TESS - Thermal energy supply systems), which supports the transition of heating plants utilising fossil fuels to clean energy sources. Support is provided for the reconstruction or replacement of an old source with a new one, in both cases the condition is that the fuel base or energy type must be changed to a clean source (electricity from renewable sources, waste heat energy, renewable energy, natural gas, energy from waste, etc.). Eligible applicants are the owners of the thermal energy source under consideration at the TESS, the owners of the TESS who do not have a licence but the infrastructure is operated by an entity with the above licence and the owners of the new thermal energy source. The

total allocation is CZK 15 billion, with a maximum support rate of 30-80% depending on the type of project and its technology or the region in which the project is implemented. Applications can be submitted until 30 June 2023.²⁸

The second call is HEAT Call No. 1/2023 - Modernisation of distribution systems in heat and power plants, which financially supports modernisation and reconstruction of existing heat supply systems including transfer stations, development and interconnection of existing heat supply systems including transfer stations, installation and modernisation of technological equipment related to heat energy distribution including metering and control. Eligible applicants are the owners of the thermal energy source to be addressed in the TESS and the owners of the TESS who do not hold a licence, but the infrastructure is operated by an entity with the above licence. The projects must be carried out within the territory of the City of Prague. The total allocation is CZK 1 billion, with a maximum support rate of 30-50 % depending on the size of the company. Applications can be submitted from 26 April 2023 to 30 November 2023.²⁹

The second major programme for community energy is the RES programme, which focuses on supporting new renewable energy sources. There are currently two major calls for the programme. The first is the RES+ Call No. 3/2022, which focuses on municipal photovoltaic panels for small communities. The installation of new photovoltaic power plants (PV) with an installed capacity of up to and including 1 MWp per TS/DS (Transmission system/ Distribution system) feed-in point on the roofs and canopies of public (non-commercial) buildings will be supported, including energy storage, related roof and internal wiring renovations or the acquisition of energy management systems. Eligible applicants are municipalities in the territory of the Czech Republic with a maximum population of 3 000 inhabitants as of 1 January 2022 according to the Czech Statistical Office. The total allocation for this area is CZK 1.5 billion, and municipalities can draw support of up to 75% of the total project expenditure. Applications for financial support can be submitted until 30 June 2023.³⁰

The second relevant call in the RES programme is the RES+ call 4/2022, which aims to support municipal photovoltaic panels for larger municipalities. Clustered PV construction projects that include multiple sub-projects with more than one feed-in point to the TS/DS, located on the territory of the applicant and/or the applicant's grantor or owner, will be supported, and the cost of both electrical and thermal energy storage and controlled consumption equipment will be covered. Eligible applicants for this call are municipalities, self-governing urban districts and urban districts and the contributory organisations set up by them or legal entities wholly owned by them. The total allocation for this call is CZK 2.5 billion; the amount of individual contributions will depend on the installed capacity, the storage capacity or the performance of the electrolyser. Applications can be submitted until 30 June 2023.³¹

Of the ten subsidy programmes mentioned above, the KOMUENERG programme, which deals specifically with community energy, is particularly important. The main objective here is to support open energy communities set up to meet their energy needs, where the main purpose is not to make a profit. Challenges in this programme are not yet open, but supported activities will include support for the creation of community energy communities; the construction of community power plants, using non-fossil fuel RES, with their own or leased distribution network, including energy storage, smart grid and metering features, and optimisation of energy consumption; construction of community heating plants and heating plants using RES or SES, including the construction or reconstruction of the TESS network, and optimisation of energy consumption; construction of community biogas plants

²⁸ <https://www.sfzp.cz/dotace-a-pujcky/modernizacni-fond/vyzvy/detail-vyzvy/?id=19>

²⁹ <https://www.sfzp.cz/dotace-a-pujcky/modernizacni-fond/vyzvy/detail-vyzvy/?id=22>

³⁰ <https://www.sfzp.cz/dotace-a-pujcky/modernizacni-fond/vyzvy/detail-vyzvy/?id=17>

³¹ <https://www.sfzp.cz/dotace-a-pujcky/modernizacni-fond/vyzvy/detail-vyzvy/?id=18>

processing sorted bio-waste in the community; systems using landfill gas; systems for the accumulation of electrical and thermal energy; processing and distribution of biomass for efficient use in TESS; installation of active energy management systems (e.g. Last but not least, the construction of community energy charging or filling stations. The expected allocation for this area will be 1.5 – 3 % of the Modernisation Fund. Specific calls and further details are not yet known.³²

The last two programmes of the Modernisation Fund that could be helpful and act as a complement to the financing of activities related to the establishment and operation of energy communities are ENERGov - Energy efficiency in public buildings and infrastructure and HOUSEnergy - Energy efficiency in the residential sector. The former is designed to support the construction and retrofitting of renewable energy sources for public buildings, while the latter is aimed at the acquisition of renewable energy sources and savings of primary non-renewable energy in the residential sector. The calls for these programmes are not announced at the moment.³³

6.1.2. Operational Programme for Just Transition (OPJT)

This operational programme in the Czech Republic for the years 2021-2027 is aimed at addressing the negative impacts of the shift away from coal in the Karlovy Vary, Moravian-Silesian and Ústí nad Labem regions. The managing authority is the Ministry of the Environment. The aim of the programme is to address not only the social and economic impacts but also the environmental impacts of the transition and to prepare the regions for a climate-neutral economy by 2050. Thematic challenges will focus, among others, on the development of new renewable energy sources and related technologies and on new local electricity distribution systems based on energy communities. The target groups eligible for support will be businesses, with an emphasis on SMEs, the public sector and the non-profit sector, including energy communities. The detailed terms of the individual calls were not known at the time of writing.

6.1.3. Operational Programme Environment (OPE)

The Operational Programme Environment (OPE) is a key subsidy programme in the field of environmental protection. The managing authority of the programme is the Ministry of the Environment. The main objectives of the programme include, among others, improving air quality, increasing energy efficiency, promoting energy savings and the efficient and economical use of renewable energy sources. Three relevant calls have been identified from the programme to draw support for energy community development and related activities.

The first one is the 11th call of the OPE entitled Construction and reconstruction of renewable energy sources for public buildings falling under the specific objective 1.2: Promotion of renewable energy, measure 1.2.1 - Construction and reconstruction of renewable energy sources for public buildings and measure 1.2.2 - Construction and reconstruction of renewable energy sources to ensure the supply of system energy in the public sector. Supported activities include the replacement of a heating, cooling or hot water source using fossil fuels or electricity with a heat pump, a biomass boiler or a combined heat and power or cooling plant using RES. The project may also include the reconstruction of the heating system, so the installation of solar thermal systems and photovoltaic systems is also supported. Last but not least, the introduction of energy management is also supported. Eligible applicants are regions, towns and municipalities outside the capital city of Prague, associations and others. The total

³² <https://www.sfzp.cz/dotace-a-pujcky/modernizacni-fond/programy/>

³³ Ibid.

allocation of the call is CZK 1.1 billion, the level of support will depend on the individual costs. The call is continuous, the closing date is planned for 31 May 2023.³⁴

The second call is the 37th call of the Operational Programme for Environment entitled Comprehensive energy-saving projects in public buildings, which falls under the specific objective 1.1: Measures in the field of energy efficiency and reduction of greenhouse gas emissions and measure 1.1.1 - Reduction of energy consumption of public buildings and public infrastructure. However, the call can also be combined with measures 1.1.3 Improving the quality of the indoor environment of public buildings, 1.1.4 Increasing the adaptability of public buildings to climate change and 1.2.1 Construction and reconstruction of renewable energy sources for public buildings. Supported activities include, for example, comprehensive or subsequent building modifications leading to improved thermal performance of the building envelope, reconstruction of the heating system and the introduction of energy management, including control software and measurement and control elements to optimise energy production and consumption. Eligible applicants are regions, towns and municipalities outside the capital city of Prague, associations and others located in the Ústí nad Labem, Karlovy Vary, Pardubice, Liberec, Hradec Kralove, Moravian-Silesian, Olomouc and Zlín regions. The allocation for approved projects is announced at CZK 2.5 billion, the level of support will depend on individual costs. The call is continuous, applications can be submitted from 3 April 2023 to 1 March 2024.³⁵

The last call in the OPE, which has been identified as suitable for drawing support for the development of energy communities and related activities, is the 45th call entitled Replacement of boilers for low-income households, which falls under the specific objective 1.2: Promotion of energy from renewable sources and measure 1.2.3 - Replacement of non-compliant solid fuel combustion sources and acquisition of home transfer stations. The financial support is aimed at replacing a solid fuel boiler that does not meet emission classes 3, 4 and 5 with a new environmentally friendly source. The supported sources are biomass boilers and/or electric and gas heat pumps. Eligible applicants are owners or co-owners of family houses, residential units in apartment buildings or permanently occupied buildings for family recreation in the Czech Republic. It is a condition that either the applicant and all members of his/her household are in receipt of an old-age pension or a 3rd degree disability pension at the date of the application for support, or that the applicant (or one of the members of his/her household) is in receipt of a housing allowance between 1 January 2022 and the date of the application for support, although it is not necessary that he/she is in receipt of the allowance for the entire period. The total allocation for approved projects is announced at CZK 1.7 billion. The funding rate is a maximum of 100% of the total eligible expenditure. The call is continuous and applications can be submitted until 5 April 2023 - 30 June 2023.³⁶

6.1.4. Operational Programme Technology and Applications for Competitiveness (OP TAC)

OP TAC is the main programme for supporting Czech entrepreneurs. If energy communities could take the legal form of a limited liability company or a joint stock company, it would be possible for communities to benefit from this programme. Areas supported here include co-financing of business projects in the field of research, development and innovation, digitalisation, business development, the circular economy, but of particular importance for the purposes of this document is sustainable energy. The managing authority of the programme is the Ministry of Industry and Trade.

³⁴ <https://opzp.cz/dotace/11-vyzva/>

³⁵ <https://opzp.cz/dotace/37-vyzva/>

³⁶ <https://opzp.cz/dotace/45-vyzva/>

The first major call in the field of community energy is call 01_23_018 entitled Renewable Energy - Small Hydro Power Plants - Call I, falling under specific objective 4.2: Promotion of renewable energy. The supported activities here include the construction and modernisation of small hydropower plants, for which small and medium-sized enterprises and large enterprises on the territory of the entire Czech Republic outside NUTS 2 Prague can apply. The total allocation of the call is CZK 500 million. It is a continuous call, the reception of applications would start on 15 May 2023, the end of the reception of applications is planned for 28 June 2024.³⁷

The second call is the call 01_23_019 called Renewable Energy Sources - Injection of Biomethane - Call I., which, like the previous one, also falls under the specific objective 4.2: Support for energy from renewable sources. The supported activities here include support for the transformation of existing biogas power plants into biomethane plants and the construction of new biomethane plants (purification of biogas to natural gas quality, its carburation, measurement of biomethane quality, compression and data transmission), including their connection to gas networks and/or local infrastructure. Small and medium-sized enterprises and large enterprises located throughout the Czech Republic outside NUTS 2 Prague can apply for the subsidy. The total allocation of the call is CZK 1 billion. It is a continuous call, the reception of applications started on 15 May 2023 and the end of the reception of applications is planned for 28 June 2024.³⁸

6.1.5. National Recovery Plan (NRP)

The National Recovery Plan is a strategic document through which the Czech Republic applies for funding from the European Recovery and Resilience Facility to implement activities aimed at recovering from the effects of the pandemic and supporting investment in green and digital transformation. The National Recovery Plan was developed by the Ministry of Industry and Trade and is structured into six pillars, which are further divided into components and specific activities. Important for the purposes of this document is Pillar 2, entitled Physical Infrastructure and Green Transition, which is managed by the Ministry of the Environment. The activities here are managed through the following support programme: the National Environment Programme (NEP), the New Green Savings 2030 (NGS 2030), the Support to the Restoration of Natural Landscape Functions (POPFK) and EFEKT (a programme managed by the Ministry of Industry and Trade) - part of activity 2.5.3.

In the area of Pillar 2, Component 2.5.3, a call is planned in the second quarter of 2023 that focuses directly on community energy. This will be the call of the National Environment Programme - Support for the establishment of energy communities, which will focus on the preparation of the analyses needed for the establishment of the community and the activities of the manager ensuring the establishment of the community. The target group is entities setting up energy communities. The total allocation of the call is CZK 99 million.³⁹

An important component within the European Recovery and Resilience Facility is component 7.2 to support the decentralization and digitization of energy, which will be transposed to the NRP. The main general objective of the component is to ensure the successful implementation of the transformation of the internal electricity market in the Czech Republic, in accordance with the Clean Energy Package for all Europeans (Clean Energy Package, hereinafter also referred to as "CEP"), and in particular to ensure data exchanges up to a time close to the real time between market participants resulting from the decentralization of production (development of Renewable resources, accumulation and

³⁷ <https://www.dotaceeu.cz/cs/jak-ziskat-dotaci/vyzvy/obdobi-2021-2027/01-operacni-program-technologie-a-aplikace-pro-kon/obnovitelne-zdroje-energie-male-vodni-elektrarny-v>

³⁸ <https://www.dotaceeu.cz/cs/jak-ziskat-dotaci/vyzvy/obdobi-2021-2027/01-operacni-program-technologie-a-aplikace-pro-kon/obnovitelne-zdroje-energie-vtlaceni-biometanu-vyzv>

³⁹ <https://www.planobnovy.cz/vyhlase-vyzvy>

aggregation and flexibility management) and the development of multilateral trade relations (energy communities). In order to implement and develop these activities on the electricity market without simultaneously jeopardizing the safety and reliability of the system, it is necessary to process large volumes of data in almost real time. For these purposes, it is necessary to create an Energy Data Centre (EDC), which will ensure the transfer of data between individual market actors and enable the development of new activities in the energy sector, which can significantly contribute to both energy security and the transformation of the Czech Republic, as well as the reduction of energy costs for consumers. In terms of content, the component focuses on the description of the reforms needed for the transformation of the internal electricity market in the Czech Republic and for the establishment and development of energy communities (these are mainly reforms of the legislative type with a link to the upcoming amendments to the Energy Act Lex RES 2 and 3) and also on the description of the intended investment of the Electric Energy Data Centre planned in the estimated amount of CZK 1 billion. The process of establishing this centre is already underway, while its overall time horizon is planned for the period 2023 – 2026 (2023 – 2025: implementation of tenders according to the Act on Public Procurement for the supply of hardware, software and construction works, start of trial operation, 2026: start of full operation). This period is relatively long and prevents the start of activity and operation of energy communities in full within the time horizon based on the current European legislation. For this reason, it is mentioned in chapter 9 Action plan description of the intervention in the form of a project fiche for speeding up the establishment and operation of the Energy Data Centre and the Energy Digital Platform.

6.1.6. Effect III

The state programme for the promotion of energy savings EFEKT III focuses, as its name implies, on the promotion of energy savings and the reduction of energy consumption. Its administrator and provider of support is the Ministry of Industry and Trade. The financial allocation, which should reach up to CZK 160 million per year, is distributed across five axes:

- AXIS 1 Pre-project preparation
- AXIS 2 Consultancy activities
- AXIS 3 Education
- **AXIS 4 Energy Management and Concepts**
- AXIS 5 Pilot projects

The Axis 1 Pre-project preparation area financially supports studies of the potential for energy savings to reduce the energy consumption of buildings, comprehensive energy studies, evaluation of the feasibility of renovation in the form of EPC (Energy Performance Contracting), preparation of investment plans and preparation of tender documents for public procurement. Currently, there is one call in Axis 1 for Elaboration of EPC project suitability analysis, Support can be drawn by public entities (e. g. municipalities, regions, etc.), commercial corporations (a. s., s. r. o., etc.) and other types of entities such as associations. The total allocation of funds in this programme will be CZK 4 million, the maximum amount of subsidy is 400,000 and 80% of eligible expenses. Applications can be submitted until 30 June 2023.⁴⁰

Axis 2 Advisory activities supports advisory and consultancy services, energy centres and the creation of energy agencies. Axis 3 Education focuses on training and dissemination of information in the field of energy saving.

⁴⁰ https://www.mpo-efekt.cz/upload/6cd6d069e64a28ff10122424d61b29ea/vyzva_efekt_4_2023_epc-analyza_1.pdf

Axis 4 Energy Management and Concept is mainly relevant for the development of community energy, which focuses on financial support for the elaboration of the design of measures necessary for energy intensity reduction and efficient energy management, preparation for energy management system certification, the preparation of local energy concepts of municipalities and voluntary associations of municipalities, including the preparation of an action plan, the contribution to energy manager services, the preparation of territorial energy concepts of regions and cities and, last but not least, Axis 4 is aimed at supporting the establishment and development of civic community energy. The rate of support is then a maximum of 90% of eligible expenditure. There are no current relevant calls at this time.

The last Axis 5 Pilot Projects is focused on the development of non-investment projects according to the needs and requirements of the MIT in the field of energy efficiency reduction.

6.1.7. National Development Bank (NDB)

If it was possible for energy communities to have the legal form of a limited liability company and a joint stock company, as business entities, they could benefit from soft loans in the Energy Savings, New Energy Savings programmes, but at the moment this opportunity is not envisaged due to meeting the requirement for the non-commercial feature. Under the Energy Savings Programme, it is possible to finance the modernisation of electricity, gas and heat distribution systems in buildings; the modernisation or replacement of existing equipment (e.g. boilers) for the production of energy for own use; the installation of cogeneration units; the acquisition and installation of renewable energy sources for own use (biomass, solar systems, heat pumps and photovoltaic systems); the introduction of energy metering and control systems and electricity storage. The programme is intended for small, medium and large entrepreneurs operating in the energy sector outside the capital city of Prague. Loan amounts can range from CZK 500,000 to CZK 60 million. An interest-free loan is granted up to 90% of eligible project costs (for projects up to CZK 3 million), otherwise an interest-free loan is granted up to 70% of eligible costs. The repayment period is 10 years with a possible extension of 4 years. Together with the loan, a financial contribution of up to CZK 250 000 may be provided for the acquisition of an energy assessment. A financial contribution of up to CZK 4 million can also be made to cover the interest on a commercial loan.⁴¹ Complementing the Energy Savings Programme is the ENERGO programme, which provides interest-free loans to finance energy-saving business projects implemented in Prague.⁴²

The New Energy Savings Loan Programme can finance the use of renewable energy sources; modernisation of electricity, gas, heat, cold and compressed air distribution systems in the energy management of enterprises to increase their efficiency; accumulation of all forms of energy in the framework of complex projects to increase energy efficiency; introduction of elements of efficient energy management and optimisation of operations to regulate energy consumption, including support for the implementation of energy management tools and other activities to increase energy efficiency. The programme is intended for companies of all sizes. The amount of the loan, with an interest rate of 1,99 % p.a., can range from CZK 500 000 to CZK 60 million, and the loan can be drawn up to 90 % of the eligible project expenditure. The repayment period is 10 years with a possible extension of 2 years. Together with the loan, a financial contribution of up to CZK 250 000 may be provided for the acquisition of an energy assessment, with a maximum financial contribution of 80 % of the eligible expenditure. Together with the soft loan, a financial contribution in the form of a grant is also provided to the beneficiary in the event of proper completion of the project and fulfilment of

⁴¹ <https://www.nrb.cz/produkt/uspory-energie/uspory-energie-oppik/>

⁴² <https://www.nrb.cz/produkt/energ/#kontaktni-formular>

the energy parameters to which the applicant has committed. The amount of the grant is limited to a maximum of 35 % of the eligible project expenditure.⁴³

For the public sector, the National Development Bank helps to obtain funding for projects that serve to protect the environment, such as energy saving measures (energy efficiency improvements in existing buildings/insulation, energy efficient heat sources and low carbon technologies, window replacements, insulation, district heating/distribution networks, renewable energy production (alternative heat generation, energy storage).⁴⁴ In addition to the NDB loan, towns and municipalities from structurally affected regions such as the Moravian-Silesian Region, the Ústí nad Karlovy Vary Region and the Karlovy Vary Region can receive a 25% subsidy for financing infrastructure projects. The credit facility is used under Pillar III of the Just Transition Mechanism and is aimed at investments in the public sector or investments that provide a service of public interest. Projects up to CZK 600 million are supported, with financing of up to 50% of the project cost.

6.1.8. TAČR

Clean Energy Transition is also supported by the Clean Energy Transition Partnership (CET), a research programme of the Technology Agency of the Czech Republic (TAČR), which aims to support the implementation of the European Strategic Energy Technology Plan. Specifically, the CET focuses on strengthening the energy transition by bringing together national and regional funding programmes focused on technologies and system solutions needed for the transition, accelerating the development of clean energy technologies and the transition towards decarbonised energy systems, and building innovation ecosystems that will strengthen capacity building for the clean energy transition. The CET Partnership, bringing together 70 national or regional research programmes, plans to launch six cofounded calls over its nearly seven-year lifetime. In addition to these activities, the Partnership will pursue follow-up activities in the area of knowledge integration and transition or the creation of Knowledge Communities (e. g. the CETPartnership Knowledge Community). There are no calls in the programme at the moment.⁴⁵

6.2. International instruments

6.2.1. Horizon Europe

It is a funding programme under the executive agency CINEA, which makes available financing in the form of grants. Successful projects are supported under this instrument with the aim to contribute to several European Green Deal objectives.

The energy sector is the focus of the programme in **Pillar 2 in Cluster 5 - Climate, Energy and Mobility. The Sustainable, Secure and Competitive Energy Supply Destination**, which falls under Cluster 5, promotes, among other things, carbon capture, storage and utilisation (CCUS) methods, renewable energy sources, energy storage solutions (chemical, mechanical, electrical and thermal), energy grid modernisation and efficient approaches to managing smart and cyber-secure energy networks. There are currently 24 open calls and 29 more in the pipeline.

Another relevant Destination within Cluster 5 is **Efficient, Sustainable and Inclusive Use of Energy**. The objective is to provide research, innovation and technological development to achieve climate neutrality, to move towards zero pollution in buildings by 2050, to increase energy efficiency in industry

⁴³ <https://www.nrb.cz/produkt/uspory-energie/nove-uspory-energie-optak/>

⁴⁴ <https://www.nrb.cz/verejny-sektor/financovani/zivotni-prostredi/>

⁴⁵ <https://www.tacr.cz/program/clean-energy-transition/>

and to reduce greenhouse gas production and emissions in industry through the recovery, upgrading and/or conversion of industrial surplus (waste) heat and through the electrification of heat production. There are currently 5 calls open in the destination and 8 more are in the pipeline.

Two cross-cutting missions, namely the Climate Neutral and Smart Cities mission and the Climate Change Adaptation including Social Transformation mission, are also addressing areas related to community energy. The Climate Neutral and Smart Cities mission aims to support and promote 100 European cities on their journey towards climate neutrality by 2030. Currently, there is only one call in this area, but it only applies to Ukrainian cities. The mission Adaptation to Climate Change including Social Transformation aims to support this process, to find effective solutions, including an emphasis on behavioural change. There are currently 3 open calls in this mission.⁴⁶

6.2.2. LIFE

The LIFE Programme is the main programme that focuses specifically on the environment and climate and therefore plays a crucial role in the implementation of EU legislation and policies, in line with the European Green Deal. The overall objective of the LIFE Programme is to contribute to the transition to a clean, circular, energy-efficient, low-carbon and climate-resilient economy, while protecting, restoring and improving the quality of the environment, including air, water and soil, and halting biodiversity loss and addressing ecosystem degradation by supporting the implementation and management of the Natura 2000 network, thereby contributing to sustainable development. LIFE is divided into two areas and 4 sub-programmes:

1. ENVIRONMENT:

- Nature and Biodiversity
- Circular Economy and Quality of Life

2. CLIMATE:

- Climate Change Mitigation and Adaptation
- **Clean Energy Transition**

The most relevant sub-programme for energy communities is the **Clean Energy Transition**. It is devoted to removing non-technical barriers to the energy transition and it has annual calls on energy communities and energy poverty. It builds on the Energy Efficiency calls of Horizon 2020 which, under Energy Communities finances several projects involving Czech Republic such as the on-going **PowerUp!** and the closed **SCORE**. The aim of the project **PoweUp!** is to tackle energy poverty via the creation or the reinforcement of local energy markets players with a social agenda. Six pilot schemes will be developed in six locations across Europe to concretely alleviate energy poverty by providing cheaper energy, thanks to the local production of renewable energy, and support for vulnerable households to reduce and optimize their energy consumption. The revenues from the locally produced renewable energy will be also used to finance energy poverty mitigation measures. More than 2500 energy poor consumers are expected to be directly involved in the pilot schemes during the co-creation process of the pilot schemes and their implementation and more than 50.000 through communication campaigns. Maximum EU grant amount is € 1,962,832.50. The project will run from **1st of September 2021 until 31st of August 2025**.⁴⁷

The executive agency of the programme is **CINEA** (European Climate, Infrastructure and Environment Executive Agency). The focal point in the Czech Republic is the Ministry of the Environment and the

⁴⁶ <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/home>

⁴⁷ <https://www.socialenergyplayers.eu/>

State Environmental Fund. The Ministry of the Environment also provides co-funding to successful projects.⁴⁸

6.2.3. EUCF

The European City Facility/EUCF provides grants of €60,000 to cities, or associations of cities, to develop investment concepts in sustainable energy and/or clean transport. The grant can finance activities necessary for the development of investment concepts (e. g. feasibility studies, legal analyses, social studies, market studies, financial analyses, etc.). The EUCF does not support investments in fossil fuel dependent energy projects. The EUCF provides support to investment projects in the field of sustainable energy, including all energy demand-side investments that contribute to improving energy intensity and achieving energy savings. It focuses, inter alia, on the following investment sectors:

- Improving the efficiency of equipment/developing and using integrated renewable building sources - public, residential and tertiary (non-municipal) buildings,
- upgrading district heating or switching to renewable energy sources,
- smart grids,
- Sustainable urban mobility (e. g. public transport, charging stations, etc.)
- Innovative energy infrastructure (e. g. civic energy communities,
- innovative approaches to public lighting, wastewater treatment plants, etc.).

Projects can also be implemented in other sectors, as long as they fall within the scope of sustainable energy. Applicants can be municipalities and local authorities or groups of municipalities with an approved SECAP or similar plan.⁴⁹

6.2.4. EUI

The European Urban Initiative (EUI) is a new instrument that replaces the Urban Innovative Actions (UIA). The programme provides financial support to test and transfer urban innovation and new solutions for sustainable cities, where the city is a living lab. The prerequisite is a high level of innovation on a European scale and transferability to other cities. It therefore supports pilot projects that have not been supported elsewhere. The programme is aimed at cities with a population of over 50 000 inhabitants, or groups of cities and agglomerations (with a total population of over 50 000 inhabitants). Financial support is up to 80 % and up to a maximum of EUR 5 million (through the European Regional Development Fund/ERDF). The EUI targets all themes of sustainable urban development, including climate change mitigation, environmental protection (e. g. improving air quality), sustainable energy policy, etc.⁵⁰

6.2.5. EIB/ELENA

ELENA (European Local ENergy Assistance) programme is a joint initiative of the European Investment Bank and the European Commission under Horizon 2020. It supports large projects with a budget over €30 million in the form of technical assistance to prepare investments in renewable energy and energy efficiency in sustainable housing or innovative urban transport. The support is intended for the preparation of non-profit projects. It covers technical studies, energy audits, business plans and financial advice, legal advice, tender preparation, project management and project networking. Project implementation must take place within 3 years for energy efficiency improvements (including residential projects) and within 4 years for urban transport and mobility. The target groups of applicants

⁴⁸ https://cinea.ec.europa.eu/life_en, <https://www.program-life.cz/>

⁴⁹ <https://www.eucityfacility.eu/home.html>

⁵⁰ <https://www.urban-initiative.eu>

include, from the public sector, EU Member States; governmental organisations; regional, local and municipal authorities; public corporations and financial institutions. From the private sector, eligible applicants are private entities planning to develop and promote the above-mentioned investments (associations, associations of private and public entities, banks, etc.). Other private associations (e. g. social housing associations, homeowners' associations) are also eligible. Areas supported include:

1. Energy efficiency

ELENA supports the preparation of projects that improve energy efficiency and the use of renewable energy in buildings. Eligible projects include:

- energy efficiency in residential and non-residential buildings
- integrated renewable energy sources in buildings (e. g. solar panels)
- public lighting
- district heating (including combined heat and power plants and biomass boilers)
- smart grids

2. Sustainable housing

ELENA helps private individuals and homeowners' associations to design and implement renovation projects to improve energy efficiency and use renewable energy for residential buildings. Projects include:

- family houses
- apartment buildings
- social housing

3. Urban transport and mobility

Elena supports innovative transport and mobility projects in urban areas that save energy and reduce emissions. Eligible projects include:

- Investments supporting the use and integration of innovative alternative fuel solutions in urban mobility (vehicles and refuelling/recharging station infrastructure).
- Investments to support the large-scale deployment of new, more energy efficient transport, e. g. shared mobility, urban logistics, intelligent transport systems, urban infrastructure (including investments in soft mobility or mobility that does not involve motorised transport).

Support in the form of a grant is up to 90% of eligible costs (depending on the type of project).⁵¹

6.2.6 JASPERS

The “Joint Assistance to Support Projects in European Regions” (JASPERS) aims to accelerate the use of grant finances by the Member States. This technical assistance concerns infrastructures (transport networks), environmental projects and investments dedicated to improving energy efficiency performances and exploitation of renewable energy projects.

This assistance covers the preparatory phase and includes advising, coordination, building and monitoring project structures, problem solving, gaps filling. Especially, the assistance supports assessing state aid and environmental impact assessment.

JASPERS is provided through Member States as part of a more systematic implementation of the cohesion policy. Action Plans are developed on an annual basis and in close collaboration between the European Commission and national authorities, considering specific needs of individual countries.

⁵¹ <https://www.eib.org/en/products/advisory-services/elena/index.htm>

Once the JASPERS assistance is allocated, national authorities do not have any obligation of combining EU funds with EIB and EBRD loans.

6.2.7 TARGET

Launched in November 2021, the “Technical Assistance for a Green Energy Transition” aims to support EU coal, peat and oil shale regions by advising and preparing clean energy and energy efficiency projects.

TARGET also supports the transition of local jobs from fossil-fuel based activities by enabling sustainable investments. This technical assistance was developed jointly by the European Commission and the European Investment Bank adding to the Just Transition Mechanism.

The main activities envisaged in TARGET encompass preparation of individual projects, group of similar projects, capitalizing on additional EU support instruments, support in the early stages of project preparation, advise to public authorities to develop a project pipeline and capacity building. Both public and private entities based in an EU coal, peat and oil shale region as defined under the EU initiative for coal regions in transition.⁵²

7. SOCIO-ECONOMIC FRAMEWORK

7.1. Description of the overall situation on the Czech energy market

The Czech energy market, as well as the energy markets of other EU member states, was affected by Russian invasion to Ukraine in February 2022. The prices of energy raw materials (coal, natural gas, oil) and energy (electricity, heat) increased several times, energy became very expensive and almost an unaffordable goods, especially for low-income citizens.

All EU member states had to rethink their energy strategy. After the adoption of sanctions against Russia, states were forced to look for new sources of raw materials (especially natural gas), temporarily reactivate or increase coal mining, increase the capacity of nuclear power plants, and last but not least, more than ever before, start supporting the installation and operation of renewable energy sources. At the EU level, following the mutual agreement of the member states, these measures were incorporated into the RecoverEU plan. In addition, EU Member States had to temporarily fix the highest possible electricity and gas prices due to their extreme increase. It is necessary to mention that the Czech Republic implemented all the measures described above like every other EU member state, but with one exception – energy price fixing in the Czech Republic was carried out on the side of final consumers, while in other EU member states it was done on the side of producers. As a result of this fact, gas prices in the Czech Republic are the highest in the EU, electricity prices are the second highest after Latvia.

7.2. Priorities and interests of producers, distributors, suppliers and final consumers of energy

Due to the facts described above, the following trends are currently observable in the Czech energy market:

A. On the side of energy producers (electricity and heat):

⁵² Available information here: https://energy.ec.europa.eu/topics/oil-gas-and-coal/eu-coal-regions/initiative-coal-regions-transition_en

- Ensure a stable supply of energy, especially in the case of heat (the Czech Republic is a net exporter of electricity), at a lower price - due to the gradual stabilization of the energy market, the gradual covering up of natural gas supply cuts from Russia from new locations (USA, Colombia, Israel, Norway) , et al.) supplies are more stable and with competition increasing again, energy prices start to fall slightly - however, it is quite clear from long-term forecasts that energy prices will never return to the original level before the outbreak of the war conflict in Ukraine, due to the newly planned climate taxes at the European level (therefore also at the level of the Czech Republic) a further increase in the prices of energy produced from fossil fuels is expected
- Increase the share of electricity produced from nuclear and renewable sources (sun, wind, water, geothermal energy), possibly in the form of cogeneration, in the case of heat from renewable sources (e.g. solar panels, biogas stations, etc.), possibly by using waste heat

B. On the side of energy distributors:

- Maintain stable operation of the distribution system (with related maintenance and repairs), including its further expansion (CPTS – high-voltage system, ČEZ Distribuce, E. D., PREdistribution – low-voltage system)
- In appropriate cases, strengthen the low-voltage system (ČEZ Distribuce, E. GD., PREdistribution) based on agreements with local energy communities, generally with the assumption of the distributor's involvement in the community's technical-business model.

C. On the side of energy suppliers:

- With the gradual stabilization of the energy market (especially heat supplies), a gradual decrease in energy prices (both electricity and gas) can be observed - based on increasing competition, energy suppliers are starting to offer consumers discounted tariff prices, including the option of fixing for different, alternatively optional periods.
- Efforts to diversify the portfolio of supplied energy from a larger range of possible producers (ČEZ, Seven Energy, Veolia, EON, local heating plants, etc.)

D. On the side of final consumers (citizens, public institutions, businesses):

- In general, due to high energy prices (one of the highest in the EU - especially in the case of gas), to buy at the lowest possible prices - this is in line with the current offer of discounted tariffs from suppliers, including the possibility of long-term fixation (see above), which is very interesting for consumers, as another significant drop in energy prices is not expected.
- To achieve the highest possible energy independence and self-sufficiency, and thus safety

A society-wide topic promoted by Czech state and regional institutions is, of course, the need to gradually reduce emissions of CO₂ and other harmful substances (nitrogen oxides, dust particles, heavy metals, etc.). This priority is also based on the EU Green Deal, the EU Fit for 55 initiative and the RepowerEU strategic plan.

Based on a summary of all the socio-economic aspects described above, it can be concluded that the current socio-economic conditions in the Czech Republic and its coal regions are relatively favourable for the establishment and development of energy communities. Of course, the war conflict in Ukraine and the resulting energy crisis are also a significant external stimulus for the development of these communities. This is one of the main accelerators, without which the issue of establishing and developing energy communities in the Czech Republic and its coal regions would certainly not be as topical as it is at the moment.

8. DESCRIPTION OF EXISTING BARRIERS AND DRIVING FORCES FOR THE CREATION AND DEVELOPMENT OF ENERGY COMMUNITIES IN THE CZECH REPUBLIC

The identified barriers, drivers and proposed actions are summarised in the following figure:

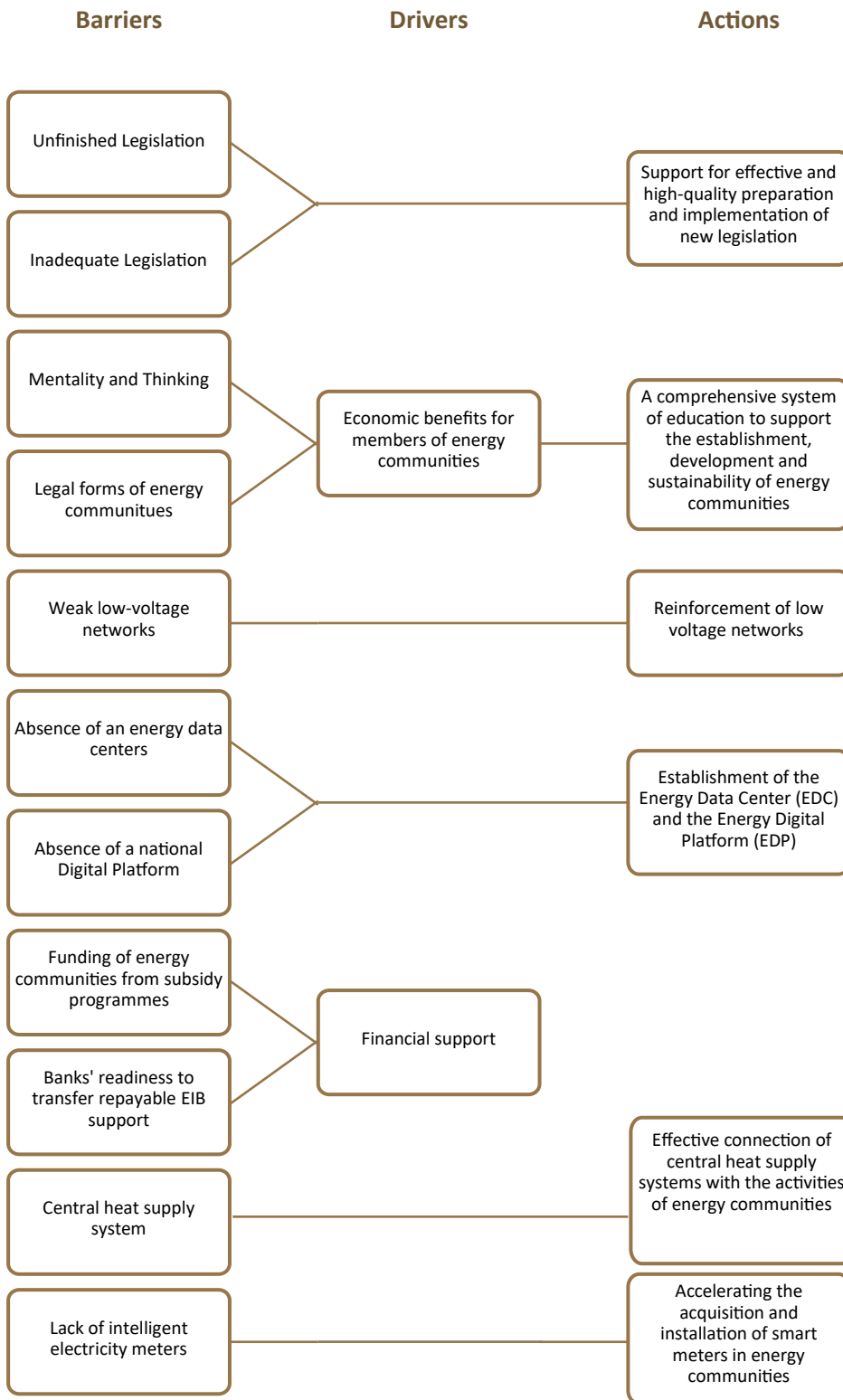


Figure 2: Diagram of barriers, drivers and actions

8.1. Description of barriers, risks and possibilities for their elimination

The following table No. 2 shows the barriers divided into two areas according to the degree of their influence on the establishment and development of energy communities: primary barriers (with a substantial importance) and secondary barriers (relevant barriers but not fundamental).

Primary barriers	Secondary barriers
Incomplete current legislation	Absence of an energy digital platform
Inadequate new legislation	Banks readiness to transfer repayable EIB support
Mentality and thinking	Funding of energy communities from subsidy programmes (focus of support)
Weak low-voltage networks	Allowed legal forms of energy communities
Absence of an energy data centre (will be introduced by the upcoming amendment lex RES 2)	Possibilities of involvement of central heat supply systems
Lack of intelligent electricity meters	Limited budget possibilities and competences of regional and local self-governments

Table 2: Primary and secondary barriers

8.1.1. Primary barriers

1. Incomplete current legislation

The framework is missing - Act No. 458/2000 Coll., the Energy Act, in its updated form (lex RES 1) is valid, however it does not address the issue of energy communities, currently the ERO decree on sharing electricity in apartment buildings is valid, which is the first step to the establishment and development of energy communities (only in the field of electricity), but again the issue in question is not comprehensively covered in this document, another related legal norm lex RES 2 is in the final stage of preparation, however, its adoption (by the end of 2023 at the latest) will not be covering all the missing legal aspects (this legal standard will focus mainly on the legislative and organizational conditions for the establishment of energy communities, less on the technical aspects connected with this topic), the latest version of this legal standard also provides for a temporary limitation of electricity sharing (max. to 1000 places or electricity production units, namely in the contiguous territory of the administrative districts of not more than 3 municipalities with extended competence or in the territory of the capital city of Prague), due to the incompleteness of the content of this standard, it will be necessary to wait for the latest legal standard, lex RES 3, which will complete the mosaic of all the necessary legal provisions in such a way that comprehensive rules are set for the establishment and operation of energy communities (lex RES 3 will deal primarily with the conditions for production, accumulation, recovery, flexibility and aggregation of energy, as well as technical aspects related to surpluses, especially of electrical energy, their distribution, sharing, etc.). The process of preparing and approving lex RES 3 will take at least another year (ie until mid-2024).

The following risk follows from the facts described above - the process of establishing energy communities and preparing subsidy programmes for their support (e.g. Modernization fund - KOMUENERG programme) is ahead of the legislative process - this may result in a number of unresolved

legal issues during the establishment of energy communities and then a series of subsequent legal, economic and technical issues during their operational phase. The only way to mitigate this risk is to exert continuous pressure on the legislative bodies of the Czech Republic so that the given mosaic of all necessary legislative regulations is complete not only in the shortest possible time, but also in an appropriate quality (see next point).

2. Inadequate new legislation (not meeting the needs)

Experts are concerned about the poor quality of the new legislative acts described above (Lex RES 2 and Lex RES 3), which do not sufficiently cover all the legal, organizational and technical shortcomings mentioned, which may result in a number of subsequent problems during the process establishment and operation of energy communities - therefore, it is necessary to communicate intensively with the legislative bodies of the Czech Republic, so that the working groups for these legal standards include the highest possible proportion of renowned experts familiar with the issues of energy communities from a practical point of view as well, and that the recommendations of these experts are appropriately included in the these new legal norms.

3. Mentality and thinking

- a) A still positive attitude towards fossil fuels on the part of ordinary citizens and politicians – this barrier applies especially to the coal-fired regions of the Czech Republic (Moravian-Silesian, Karlovy Vary and Ústí Region) and there is a risk of inadequate, perhaps biased, rejection of the concept of energy communities. This risk can only be eliminated by long-term and targeted education, awareness and promotion tailored to these target groups of potential participants in energy communities in the future.
- b) Economic conditions - prices, seasonal differences - there is a risk that some members (consumers) of energy communities will not have an objective approach in terms of staying in energy communities in the long term (in the summer, electricity prices will drop to almost zero, perhaps even to negative values due to large surpluses, but producers in the community will offer electricity at a fixed price, which will be higher in the summer season - this is a question of knowledge and mentality - consumers in the community should realize that this price is beneficial to them in the long run, but not in every possible specific moment) - this risk can also be eliminated by quality education of all potential target groups explaining the advantages and disadvantages of energy communities in a logical context describing all relevant aspects in mutual context.

4. Weak low-voltage networks (problems with the purchase of surplus electricity by ČEZ Distribuce - in most locations in the Czech Republic)

This is a fundamental barrier that can disrupt the basic concept and purpose of energy communities, which is the sharing of surplus electricity. However, this problem can be solved by the fact that each energy community (in order to be considered as one) should have built a system for managing energy flows and its own electric energy storage, part of the capacity of which will be leased to the distribution company, which in return will offer the community a lower rate at offtake from the standard network in case of electricity shortage, and in this constellation the whole system of sharing surplus electricity is acceptable both to the community and its members, as well as to the distribution company.

5. Absence of an Energy Data Centre (EDC – under construction)

EDC activity is key to monitoring energy flows. If it is not possible to monitor and measure energy flows comprehensively, it is very difficult, de facto impossible, from a national level to coordinate the operational parameters of energy communities in individual territorial locations of the Czech Republic

from a technical point of view - the only possible solution is to speed up the start-up of EDC activities (including ensuring its necessary scope and quality).

6. Lack of intelligent electricity meters

This is one of the key barriers, because without these electricity meters it is not possible to start the activity of energy communities (at least not to the extent and quality that would be expected) or EDC from the point of view of monitoring and managing the flows of energy surpluses. According to the MIT, smart electricity meters will be installed in consumption points with an annual electricity consumption of more than 6 MWh at the low voltage level from 1 July 2024 for the following three years. This is a selective roll-out. Lex RES 2 assumes that each consumption point that participates in sharing will be entitled to a free electricity meter that will ensure continuous measurement. The costs will be borne by the distributor.

8.1.2. Secondary barriers

1. Absence of a Digital Platform for Energy Communities at the national level

Digital Platform for Energy Communities would allow sharing of information about the communities themselves, their members and partners, legislation, would create an interactive environment for the initiation of new projects, public education, etc. (can be linked to EDC) - goal is to create a robust and transparent system of information, knowledge and competences for energy communities, which will contribute to speeding up their establishment and improving the quality of their activities, as the current environment for the functioning of energy communities is characterized by fragmentation and lack of transparency. It would certainly be appropriate to intensify communication in this matter between all interested actors (MIT, ERO, non-governmental organizations, regional and municipal governments, energy communities as such, producers, distributors and sellers of energy), who would contribute to the fastest possible establishment and launch of this platform.

2. Banks' readiness to transfer repayable financial support from the EIB to energy communities as final beneficiaries

According to the EIB's statement, repayable financial support from its side (favoured bank loans and guarantees) is provided for smaller energy sources to target beneficiaries through commercial banks, which may run out to technical-organizational complications in mediating this support - this risk can be eliminated by consistent communication between the EIB, commercial banks and energy communities, i.e. their associations (especially UCE and ACE CR) so that possible complications occur only occasionally, are not serious and thus would be easily and quickly removed

3. Funding of energy communities from subsidy programmes

In the event that the subject of support from subsidy programmes is not only the investment phase but also the operational phase (due to pressure from certain interest groups), a number of energy communities with business models may emerge that without operating subsidies would be unsustainable and will thus lead to inefficient use of public funds - it is recommended to subsidize only the investment phase, and if also operational, then only for a limited period (max. 2-3 years) for selected smaller energy communities with a smaller membership base (on the basis of specific criteria) so that business models of energy communities are economically sustainable in the long term. However, it can be expected with high probability that a vast majority of subsidy programmes, or even all of them, will financially support only the investment phase.

4. Legal forms of energy communities

The upcoming legal standard lex OZE 2 is considering the following possible legal forms of energy communities – association, cooperative, other corporation, whose internal relations according to the founding legal act are essentially similar in content and purpose to the internal relations of an association or cooperative defined by law. The main mission of energy communities is the sharing of energy surpluses among their members, and thus they should primarily be non-profit organizations that can generate profit, but it should not be their main goal. In LEX OZE 2, it is proposed that if the community has the form of a cooperative or other similar business corporation, it may, if the founding legal act allows, distribute a maximum of 33% of the profit and other own resources only among its members,

a) if it does not jeopardize the fulfilment of the purpose of the community and the provision of the needs of community members,

b) if it creates a fund from profits in the amount of at least 30% of the share capital, which cannot be distributed among the members.

If the community has the form of an association or other similar corporation that is not a business corporation, the distribution of profits or other own resources is prohibited.

5. Central heat supply system

This aspect refers to energy communities, the purpose of which will be to share not only excess electricity, but also heat. The goal is that the very well-developed system of central heat supply with huge capacities in the coal regions of the Czech Republic is effectively used within the process of establishing and developing energy communities, so that it does not become destabilized as a result of the spontaneous establishment of these communities.

6. Small budgets and competences of regional and local self-governments

Insufficient connection of the regional energy concept with the national energy concept - here there is a risk of low support for the establishment of energy communities by regional and local self-governments and insufficient writing of the establishment and specific intentions of energy communities into regional energy concepts, i.e. subsequently into the national energy concept. A possible way to eliminate this risk is to gradually strengthen the budgetary possibilities and competences of regional and local self-governments and intensify communication between energy communities, local and regional self-governments when updating regional energy concepts, thus also with the national level (with MIT, ERO, and thus also with ČEZ, CPTS and ČEZ Distribuce) when updating the national energy concept (in order to effectively incorporate the activities of energy communities into these energy concepts).

8.2. Description of driving forces

In addition to the barriers described above, there are of course also driving forces that by their nature stimulate the establishment and development of energy communities in the environment of the Czech Republic and its coal regions:

1. Economic benefits for members of energy communities

- a) For producers – the possibility to supply energy to consumers in the community at a price higher than the purchase price from the distribution company
- b) For consumers – the possibility to buy energy cheaper than through a distribution company

2. Financial support (large variety)

At the moment, a wide range of subsidy programmes are being prepared, which will make it possible in the near future to massively finance, in particular, the establishment of energy communities, the purchase of technologies for their operation and the training of the necessary personnel. We can mention, for example, the Modernization Fund, the National Renewal Plan, the Operational Programme Environment, the Operational Programme Technology and Applications for Competitiveness, the Operational Programme Just Transformation and the MTI Effect III programme.

In addition to subsidy programmes, returnable financial assistance tools are also offered in the form of preferential loans, bank guarantees, or a combination thereof. It is necessary to mention above all the financial instruments of the European Investment Bank (EIB), instruments of repayable financial assistance related to energy communities will also be offered by the National Development Bank.

The issue remains the timing of calls and the definition of supported activities and eligible applicants, especially in the case of subsidy programmes, so that there are no direct time overlaps and duplication of supported objectives between them.

3. Energy independence and security

Together with the economic benefits, this stimulus is one of the most important, because due to the outbreak of the war in Ukraine and the resulting energy crisis, the possibility of sharing electrical and thermal energy within energy communities is a welcome option for citizens, public institutions and companies to deviation from standard energy supplies dependent on supplies of fossil raw materials, whether from the country or abroad.

4. Reduction of CO2 emissions

This is a key environmental benefit, as in a vast majority of cases surpluses of energy from renewable sources (sun, wind, water, geothermal energy, biogas, biomass, etc.) are and will be shared within energy communities. This will contribute to the fulfilment of the objectives of the EU Green Deal and other subsequent strategic action plans in the field of modern energy (especially RepowerEU and Fit for 55).

5. Social benefits

The successful launch and operation of energy communities will contribute to the building of new social ecosystems in the affected localities with a new generation of community-minded citizens, institutions and companies with responsibility towards the environment and a willingness to jointly solve further subsequent development opportunities in the field of innovative business (new business models), new approaches to environmental protection, education, etc.

9. DESCRIPTION OF THE ACTION PLAN AND ITS KEY MEASURES FOR FACILITATING AND ACCELERATING THE ESTABLISHMENT AND DEVELOPMENT OF ENERGY COMMUNITIES

Based on the information contained in the previous points 4 - 8, the following interventions/projects are proposed, which, in case of their successful implementation, will contribute to accelerating the establishment and achieving optimal development of energy communities not only in the coal regions, but in the entire Czech Republic.

- A comprehensive system of education to support the establishment, development and sustainability of energy communities
- Reinforcement of low voltage networks
- Accelerating the acquisition and installation of smart meters in energy communities
- Support for effective and high-quality preparation and implementation of new legislation to support the development of energy communities
- Establishment of the Energy Data Centre (EDC) and the Energy Digital Platform (EDP)
- Effective connection of central heat supply systems with the activities of energy communities
- Accompany the legislation with an effective publicization campaign to promote the idea of energy communities.

A detailed description of the interventions is given below, while it must be emphasized that all these interventions are purely indicative in nature and their goals, setting of activities and other parameters will be further specified by their potential holders and partners according to their current possibilities, needs and overall situation in the energy sector.

Title of intervention:	A comprehensive system of education to support the establishment, development and sustainability of energy communities
Goal of the intervention:	The aim of this intervention is to design, pilot test and then implement an education system to support energy communities at the level of primary and secondary schools, universities and other non-formal education, the result of which will be the expansion of the awareness of all relevant target groups (students, citizens, representatives of public institutions, company managers) about all relevant aspects related to energy communities – their economic and environmental benefits, including the principles (technical, legislative, organizational) of how they should function effectively
Brief description of activities:	<ol style="list-style-type: none"> 1. Creation of curricula for study programmes / educational modules for individual target groups and their accreditation 2. Pilot verification of study programmes / educational modules 3. Implementation of educational processes in full
Schedule of activities:	<ol style="list-style-type: none"> 1. Preparation of the project including the activities described above: 2nd half of 2023 2. Submission of the project to the announced call in the relevant subsidy programme: 1st half of 2024 3. Start of the project, creation of curricula of study programmes / educational modules: 1st half of 2025

	<ol style="list-style-type: none"> 4. Accreditation of study programme curricula: 2nd semester 2025 – 2nd semester 2027 5. Start of education: 2nd half of 2025 (informal education), 1st half of 2028 (formal education – lower secondary, higher education)
Coordinator/guarantor:	Coal regions of the Czech Republic (Moravian-Silesian, Ústí, Karlovy Vary region)
Partners involved:	Secondary schools, universities, non-profit organizations
Outputs:	2 curricula of study programmes (for primary and secondary schools), 1 set of educational modules for non-formal education purposes
Results:	<p>Number of students involved in formal education to support energy communities: 10,000 per year for secondary schools, 4,000 per year for universities</p> <p>Number of people participating in non-formal education to support energy communities: 3000 per year</p>
Budget:	25 million CZK
Funding source:	OPE+ (Operational Programme Employment Plus)

Table 3: A comprehensive system of education to support the establishment, development and sustainability of energy communities

Title of intervention:	Reinforcement of low voltage networks
Goal of the intervention:	Modernize and strengthen low-voltage capacity in order to distribute more excess electricity to power communities (especially in the summer).
Brief description of activities:	<ol style="list-style-type: none"> 1. Determination of evaluation criteria for the selection of locations with a priority need to strengthen low-voltage networks 2. Mapping of locations with the lowest capacities / highest overload of low-voltage networks in the coal-fired regions of the Czech Republic (Moravian-Silesian, Ústí, Karlovy Vary region) 3. Selection of locations where low voltage networks will be strengthened 4. Preparation and implementation of partial investment projects to strengthen low voltage networks in selected locations
Schedule of activities:	<ol style="list-style-type: none"> 1. Determination of evaluation criteria for the selection of locations with a priority need to strengthen low-voltage networks: 1 – 3/2024 2. Site mapping: 4 – 6/2024 3. Selection of priority locations: 7 – 10/2024 4. Preparation and implementation of investment projects to strengthen low-voltage networks in selected locations - from 11/2024
Coordinator/guarantor:	Coal regions of the Czech Republic (Moravian-Silesian, Karlovy Vary, Ústí region)

Partners involved:	ČEZ Distribution???
Outputs:	Reinforced low voltage networks in selected locations
Results:	An increase in the capacity of low-voltage networks in the order of MW according to prepared and implemented investment projects
Budget:	1 – 5 billion CZK
Funding source:	OPTAC, EIB, resources of regional governments, municipalities, Modernization Fund, National Recovery Plan, OPJT

Table 4: Reinforcement of low voltage networks

Title of intervention:	Accelerating the acquisition and installation of smart meters in energy communities
Goal of the intervention:	Support the deployment of smart electricity meters in as many functional energy communities as possible.
Brief description of activities:	<ol style="list-style-type: none"> 1. Mapping the world market for smart electricity meters 2. Determination of evaluation criteria for the selection of functional energy communities, within the framework of whose infrastructure smart electricity meters will be installed, selection of energy communities, communication with the MTI about the possibilities of involving selected energy communities in the planned trial operation of smart electricity meters 3. Purchase of smart electricity meters (organization of tenders) 4. Installation and commissioning of smart electricity meters
Schedule of activities:	<ol style="list-style-type: none"> 1. Global Smart Meter Market Mapping: 1 – 3/2024 2. Determination of evaluation criteria for the selection of suitable energy communities and subsequent selection: 1 – 6/2024 3. Purchase of smart electricity meters (organization of tenders): 1 – 6/2024 4. Installation and commissioning of smart electricity meters: 7/2024 – 6/2027
Coordinator/guarantor:	MTI
Partners involved:	LAG, energy communities, regional governments, ČEZ Distribution, ERO
Outputs:	Acquired smart electricity meters for trial operation in selected energy communities (with an annual consumption of less than 6 MWh)
Results:	The trial operation of smart electricity meters has begun in selected energy communities, which will be ready and able to transmit data on energy flows to the planned Energy Data Centre (EDC)
Budget:	1 – 3 billion CZK
Funding source:	OPTAC, Modernization Fund, National Recovery Plan, OPJT, funds of regional governments and municipalities, private funds of companies

Table 5: Accelerating the acquisition and installation of smart meters in energy communities

Title of intervention:	Support for effective and high-quality preparation and implementation of new legislation to support the development of energy communities
Goal of the intervention:	Ensure the highest quality and fastest possible preparation of new legislation to support the development of energy communities (Lex RES 2 and 3)
Brief description of activities:	<ol style="list-style-type: none"> 1. Research of the current form of the legal standards being prepared (Lex RES 2 and 3) 2. Alignment of current conditions contained in these standards with real technical, economic and other related legal aspects, including current conditions contained in subsidy programmes to support the establishment and establishment of energy communities (establishment of a working group for this purpose - its function could be fulfilled by the Steering Committee established within the project "Support of energy communities in Czech regions of just transformation") 3. Preparation of recommendations for the final wording of both legal standards and their discussion with the Ministry of Industry and Energy and the Energy Committee of the Chamber of Deputies of the Parliament of the Czech Republic
Schedule of activities:	<ol style="list-style-type: none"> 1. Research of upcoming legal standards: 7/2023 2. Processing of proposals to optimize both legal standards within the established working group (see points 2 – 3 above): 8 – 9 /2023 3. Discussion of proposals to optimize the legal standards in question with the Ministry of Industry and Energy and the Energy Committee of the Chamber of Deputies of the Parliament of the Czech Republic: 10 – 11/2023
Coordinator/guarantor:	Association of Regions of the Czech Republic
Partners involved:	Coal regions of the Czech Republic (Moravian-Silesian, Karlovy Vary, Ústí Region), LAG, energy communities, UCE, ACE CR
Outputs:	Revised legal norms Lex RES 2 and 3
Results:	Legal standards Lex RES 2 and 3 with optimized definition of all relevant technical, organizational and other related legal aspects to ensure the successful functioning of energy communities
Budget:	2 million CZK
Funding source:	Resources of the coal regions of the Czech Republic and LAG

Table 6: Support for effective and high-quality preparation and implementation of new legislation to support the development of energy communities

Title of intervention:	Establishment of the Energy Data Centre (EDC) and the Energy Digital Platform (EDP)
Goal of the intervention:	The aim is to contribute to the fastest possible establishment of an EDC (already in process) for monitoring energy surplus flows between energy communities and low-voltage distribution networks with the application of smart electricity meters at consumption points both in the case of energy producers and in the case of its consumers. Along with the establishment of the EDC, it would also be appropriate to establish an EDP - an interactive digital platform that will serve as an environment for sharing relevant current information on the issue of energy communities (business models, legislation, energy production and distribution, measurement of energy flows, education, etc.) and it would thus cultivate the current confusing and fragmented environment for the establishment and development of these communities.
Brief description of activities:	<p>Establishment of EDC:</p> <ol style="list-style-type: none"> 1. Establishment of an advisory group to support the establishment of the EDC 2. Mapping the current state of preparations for the establishment of the EDC 3. Elaboration of recommendations for speeding up the establishment of the EDC while simultaneously emphasizing the most optimal model of its functioning <p>Establishment of EDP:</p> <ol style="list-style-type: none"> 1. Establishment of a working group to support the establishment of the EDP (can be identical to the EDC advisory group) 2. Elaboration of the concept of the operation of the EDP 3. Mapping of suitable financial resources for the establishment and operation of the EDP, possible preparation of a grant application for the project of the establishment and development of the EDP
Schedule of activities:	<p>EDC:</p> <ol style="list-style-type: none"> 1. Establishment of an advisory group: 7 – 8/2023 2. Mapping the current state of preparations for the establishment of the EDC: 8 – 9/2023 3. Elaboration of recommendations for the establishment of the EDC: 10 – 11/2023 <p>EDP:</p> <ol style="list-style-type: none"> 1. Establishment of a working group (same as the EDC advisory group): 7 – 8/2023 2. Development of the EDP functioning concept: 8 – 9/2023 3. Mapping of suitable financial sources for EDP, possible preparation of subsidy application: 10 – 11/2023
Coordinator/guarantor:	ERO

Partners involved:	MTI, regional governments, LAG, energy communities, technology companies, ČEZ distribution
Outputs:	Established EDC and EDP
Results:	Optimally functioning EDC and EDP interconnected by their activities
Budget:	1 million CZK
Funding source:	ERO, regional authorities, LAG

Table 7: Establishment of the Energy Data Centre (EDC) and the Energy Digital Platform (EDP)

Title of intervention:	Effective connection of central heat supply systems with the activities of energy communities
Goal of the intervention:	In the coal regions of the Czech Republic (Moravskoslezský, Ústí, Karlovy Vary region) there is a very developed network of central heat supply. The goal is to effectively use this network and involve it in the process of sharing thermal energy with energy communities, which will focus not only on sharing electricity but also on sharing heat. It is necessary to eliminate the risk that, due to the spontaneous establishment of energy communities, could cause the disruption of this long-term built wide network.
Brief description of activities:	<ol style="list-style-type: none"> 1. Mapping of existing and potential energy communities in the coal regions of the Czech Republic 2. Mapping of CHS (Centralised heat supply) systems in the coal regions of the Czech Republic 3. Synthesis of information from the previous two points 4. Elaboration of recommendations for the integration of CHS networks into the activities of energy communities
Schedule of activities:	<ol style="list-style-type: none"> 1. Mapping energy communities in the coal regions of the Czech Republic: 9 – 10 /2023 2. Mapping of CHS systems in coal regions: 9 – 10/2023 3. Synthesis of information from both areas: 11/2023 4. Elaboration of recommendations on the integration of CHS networks into the activities of energy communities: 12/2023 – 2/2024
Coordinator/guarantor:	Regional governments in the coal regions of the Czech Republic (Moravian-Silesian, Karlovy Vary, Ústí Region)
Partners involved:	LAG, heating plants, energy communities
Outputs:	Mapped environment of energy communities and CHS systems in the coal regions of the Czech Republic
Results:	Elaborated alternatives for the integration of CHS systems into the activities of energy communities in the coal regions of the Czech Republic
Budget:	3 million CZK
Funding source:	Regional self-government budgets

Table 8: Effective connection of central heat supply systems with the activities of energy communities

Title of intervention:	Information dissemination campaign
Goal of the intervention:	Actively promote the idea and benefits of energy communities
Brief description of activities:	<ol style="list-style-type: none"> 1. Develop a vision document focusing on the legislation and existing energy communities in the Czech Just Transition territories. 2. Establish a guidance at local and regional level to promote the projects and engage citizens (and stakeholders) 3. Collect participants' feedbacks and ideas. 4. Present the results of the campaign and the main takeaways in a final local/regional/national event
Schedule of activities:	<ol style="list-style-type: none"> 1. Collection of relevant information from the legislation. 2. Selection of value propositions to be included in the vision of the campaign. 3. Elaboration of the material for the campaign (visually attractive posters and flyers, social media posts, etc...). 4. Planning of the stakeholders (and citizens) meetings to promote energy communities (local/regional venues, attendees list and networks, event organisations, event format). 5. Carry out the events and gather participants feedbacks and comments and dissemination of events results. 6. Collection of feedbacks, main takeaways and lessons learned from the promotion campaign and presentation at a national level event
Coordinator/guarantor:	Ministry of Industry and Trade of the Czech Republic
Partners involved:	Regional governments, Municipalities, Local action groups, Energy Regulatory Office
Outputs:	<p>Vision document of Czech energy communities</p> <p>Communication materials for events (posters, flyers, social media posts)</p> <p>Post-event material (reports, videos, photos)</p>
Results:	A more informed public opinion on what energy communities represents. Kick-starting of a national debate on energy communities and involvement of the relevant actors in the publicization campaign.
Budget:	80 mil. CZK
Funding source:	OP Technologies and Applications for Competitiveness, Modernisation Fund, National Recovery Plan

Table 9: Information dissemination campaign

The following table No. 10 shows the prioritization of the implementation of the action plan interventions based on three criteria:

a) Intensity of impact – given that the given interventions respond mainly to primary barriers with a fundamental impact (see ch. 8., fig. 3 and ch. 8.1., tab. 2), the impact of these interventions can also be assessed as significant or primary. The only exception is the intervention aimed at connecting central heat supply systems with the activities of energy communities, the implementation of which would significantly increase the efficiency of energy systems in energy communities focused on sharing heat

supplies and would overall optimize the system of heat production, distribution and consumption, especially in coal regions as such , however, this intervention by its nature is not essential for the actual start-up of energy communities.

b) Financial complexity – from the above estimates of the financial allocations of individual interventions, it follows that, due to their nature, costs in the order of units to tens of millions of CZK can be considered lower, in the order of hundreds of millions to billions of CZK, higher.

c) Focus on coal regions - as the given project is mainly focused on Czech regions of Just Transition (coal regions), **it is also necessary** to categorize the given interventions according to whether they can significantly help in the introduction of energy communities in disadvantaged coal regions undergoing economic transformation and thus to increase their development potential in the form of support for modern energy and other promising new industries, or these interventions are rather general in nature and thus it is appropriate to implement them on the territory of the entire Czech Republic.

Title of intervention	Interventions prioritisation according to		
	Intensity of impact	Financial complexity	Focus on coal regions
A comprehensive system of education to support the establishment, development and sustainability of energy communities	Primary	Lower (25 mil. CZK)	Yes
Reinforcement of low voltage networks	Primary	Higher (1 – 5 bln CZK)	Yes
Accelerating the acquisition and installation of smart meters in energy communities	Primary	Higher (1 – 3 bln CZK)	Yes
Support for effective and high-quality preparation and implementation of new legislation to support the development of energy communities	Primary	Lower (2 mil. CZK)	No
Establishment of the Energy Data Centre (EDC) and the Energy Digital Platform (EDP)	Primary	Lower (1 mil. CZK)	No
Effective connection of central heat supply systems with the activities of energy communities	Secondary	Lower (3 mil. CZK)	Yes
Accompany the legislation with an effective publicization campaign to promote the idea of energy communities	Primary	Lower (80 mil. CZK)	No

Table 10: Prioritisation of action plan interventions

The right column indicates prioritisation of interventions according to their focus on coal regions. The alternative „No“ means that the intervention will have impact on the territory of the Czech Republic as a whole.

It follows from the above table 10 that it is unequivocally recommended in relation to coal regions to start the implementation of the intervention "Comprehensive system of education to support the establishment, development and sustainability of energy communities" as soon as possible due to its lower financial demands. However, it also seems important to start the interventions "Strengthening low voltage networks" and "Accelerating the acquisition and installation of smart electricity meters in energy communities", despite their higher financial demands, as the intensity of their impact is considerable and without these two fundamental technical prerequisites the energy communities cannot de facto start their activities in full. We cannot forget the intervention "Effective connection of central heat supply systems with the activities of energy communities", which, as already stated, is not key for the successful start-up of energy communities, but its implementation would certainly contribute to a significant increase in the efficiency of heat production, distribution and consumption both within the energy communities themselves and in the broader context of regional heat distribution networks.

Furthermore, it can be deduced from the above table 10 that, on the contrary, it is appropriate that the interventions "Supporting effective and high-quality preparation and implementation of new legislation to support the development of energy communities", "Establishment of an Energy Data Centre (EDC) and an Energy Digital Platform (EDP)" and „The Awareness Campaign to Disseminate Information on Energy Communities" were implemented due to their nature at the national level, as they are indispensable for setting the national comprehensive overarching conditions of the legislative, technical, knowledge and information type.

⁵³ The right column indicates prioritisation of interventions according to their focus on coal regions. The alternative „No“ means that the intervention will have impact on the territory of the Czech Republic as a whole.

10. SUMMARY OF KEY FINDINGS AND RECOMMENDATIONS FOR FURTHER OUTPUTS

Building on the wealth of insights, data and analysis of above, below we summarise the key findings and recommendations of the Diagnostic Report.

Indeed, it has been clearly established that the primary obstacle for energy communities in the Czech Republic is the incomplete/lacking legislation as well as the uncertainty regarding the regulations on energy communities in the proposed amendments to the energy act (Lex RES 2 and 3). A key problem that arises because of this is that the preparation of subsidy programmes to support the establishment and development of energy communities in fact precedes the legislation. In other words, there is no legislation to base the subsidy programmes and enable energy communities in full (especially Lex RES 2 and 3). This time discrepancy can very likely result in a number of problems of a technical and organizational nature (e. g. setting business models and distribution of competences within energy communities). Other problems include, from a legal point of view, conflicting situations, which can significantly disrupt the activities of energy communities established before the approval of new legislative documents and their entry into force.

Moreover, this diagnostic report has drawn attention to the legislative standard Lex RES 2 which is under preparation, specifically the restrictions on the activities of energy communities are envisaged, including a temporary limit for electricity sharing. In the first phase, electricity sharing is limited so that in the period until June 30, 2026, the sharing group can include transfer points of no more than 1,000 consumption points or electricity production units; in the contiguous territory of the administrative districts of no more than 3 municipalities with extended competence or in the territory of the capital city of Prague. This is a technical limitation given by the rounding of measured values. There may be more such sharing groups within a community. As such, electricity sharing needs to be introduced gradually, as the billing of shared electricity and the exchange of data will require major changes for many market participants. The ultimate solution will only be possible with the full functionality of the Electric Power Data Centre (EDC), which will ensure all data exchanges in the area of electricity sharing.

These planned restrictions have given rise to two opposing opinions from both experts and the wide public. The first point of view is based on a liberal approach in the sense that no one and nothing should hinder communities in the scope of their activities. The second point of view is based on a pragmatic approach in the sense that, if in the area of energy communities there is currently a relatively large spectrum of unresolved aspects of their functioning (based on a number of problems associated with the establishment and development of these entities before the approval of the missing legislative standards and their entry into force) it is more appropriate to support their establishment and development initially on a smaller scale. This would be in the form of the indicated intended restrictions and gradually, depending on the moment and form of approval of the remaining legislative documents, to deal with problems of a smaller scale than with problems of a much larger scale. In addition, in other European countries there are a number of different restrictions on the functioning of energy communities (according to territorial units, number of members, housing units), which is mainly due to weak low-voltage networks insufficient to share larger surpluses of electrical energy.

As such, and as mentioned above, weak low voltage grids are a limiting factor also in the case of the Czech Republic and its coal regions. It can be stated that almost no progress has been made in the area of increasing the capacity of low voltage grids in the Czech Republic over the past 5 years. Due to weak low-voltage grids, it will be possible to share a limited amount of surplus electrical energy between a limited number of members in a limited territorial scope. In other words, with regards to this aspect, the restrictions on the activities of energy communities as planned above (within Lex RES 2) are in fact

no major obstacle. On the other hand, experts' opinions noted that not all locations in the Czech Republic have weak low voltage grids.

There are also various other key elements missing which serve as necessary conditions for the development of energy communities. These include the need to put into operation the Energy Data Centre (EDC), the Energy Digital Platform (EDP) and the installation of smart electricity meters, the roll-out of which (only for customers with an annual consumption higher than 6 MWh on low-voltage grids) will be from 1/7/2024 to 30/6/2027. Anyone can get a continuous meter today upon request and after payment of costs (for ordinary members of energy communities – households, schools, smaller companies, etc. – outside the mentioned roll-out). However, if there is no EDC, which would comprehensively monitor and evaluate these flows at the national level, and if there is no EDP, which would enable all current knowledge from the field of energy communities' activities to be objectively recorded and shared, then - in principle - energy communities cannot currently operate in full qualitative and quantitative scope. They can only work provisionally, share energy surpluses and monitor their flows to a limited extent. According to LEX RES 2, each collection point that will participate in sharing as part of the planned roll-out will receive a continuous meter at the distributor's expense.

An important issue also concerns the support schemes, especially of subsidy programmes that will support the establishment and development of energy communities. These programmes are still not announced, however, the first calls for applications can be expected relatively soon. The range of possible subsidy programmes is very wide (Modernization fund - here the first call from the Komuenerg programme is expected already in autumn 2023, Operational programme Technology and applications for competitiveness, Operational programme Environment, Operational programme Just transformation, National recovery plan, MTI Effect programme).

There are conflicting opinions on whether, in the case of these subsidy programmes, to allow financial support not only for the investment but also for the operational phase for communities. Of course, the primary emphasis is on making the economic models of energy communities viable and thus not relying on subsidies in the operational phase. Indeed, opinions had also been expressed on the desirability of subsidizing the operational phase of selected smaller energy communities with a smaller membership base, whose administrative-operational team would not be able to cover their costs during their initial stages. As such, it was discussed that this operational support indeed should be provided to smaller communities exceptionally on the basis of specific conditions and criteria only for a limited period of the first 2-3 years of their operation (at the most).

An additional financial support for energy communities that was explored is returnable financial instruments, in the form of preferential bank loans and guarantees provided by the EIB, mostly through standard commercial banks. Returnable financial assistance tools, although are certainly more suitable for the purposes of economically healthy and sustainable functioning for energy communities, are likely to remain in the shadow of a broad portfolio of relatively generous and less risky subsidy programmes in terms of the intensity of their use.

Moreover, the human factor is also very important. Specifically, this is about whether the members of the energy communities will be able to understand the benefits of their membership in the community with an overview in a wider context. This is because there will regularly be situations where, during periods of large surpluses of electricity (especially in summer), its prices will drop to zero, i. e. to negative values, but the prices of electricity from producers in the community will still be the same. In other words, it will be necessary for consumers in energy communities to understand that membership in the community is economically advantageous for them in the long term throughout the year, not just seasonally. These potential tendencies for some consumers to withdraw from the communities,

especially during the summer season, can be prevented by quality education and awareness of all relevant target groups so that they can interpret these aspects in all relevant and logical contexts.

The above paragraphs were mainly devoted to the description of factors preventing or limiting the successful start-up and development of energy communities in the Czech Republic and its coal regions. It is necessary to mention that the concept of energy communities has its fundamental advantages, which will gradually make it very attractive for all its relevant target groups (citizens, public institutions, companies) in the medium term. In fact, energy communities bring significant economic benefits to both consumers and energy producers at a time of ongoing energy crisis, all of which will additionally be enhanced by relatively generous financial support from subsidy programmes and also in the form of financial instruments of repayable aid. At the same time, energy communities contribute to increasing energy self-sufficiency and thus the energetic security of their members. Their environmental contribution in the form of reductions in CO₂ emissions in the locations where they operate is also very important. Other social benefits that the activity of energy communities can generate in the form of other follow-up activities of an educational, environmental, and therefore entrepreneurial nature (new business models), etc., are also significant.

From the above information, it can be concluded that although the current conditions for the activity of energy communities are not optimal and many unresolved aspects will still need to be addressed, it is becoming ever more feasible for energy communities to be established (a number of initiatives have already been established and are functioning, albeit to a limited extent qualify as a genuine energy community).

Existing and new initiatives will have to operate in a provisional regime and face a number of technical, organizational, commercial and other related legal problems. But with gradual limitation of these barriers, initiatives and their activities will be gradually cultivated and will bear fruit for all its relevant target groups.

On a final note, in chapter 9, an Action Plan and possible interventions (including their prioritisation) are described that could help solve the above-mentioned shortcomings in the field of establishment and functioning energy communities. These will be presented and discussed more directly in the next phases of this project (i. e. the dedicated information sessions and tailor-made workshops).

LIST OF TABLES

Table 1: Energy Communities under Directives REDII and IEMD 10

Table 2: Primary and secondary barriers..... 34

Table 3: A comprehensive system of education to support the establishment, development and sustainability of energy communities 40

Table 4: Reinforcement of low voltage networks 41

Table 5: Accelerating the acquisition and installation of smart meters in energy communities 41

Table 6: Support for effective and high-quality preparation and implementation of new legislation to support the development of energy communities 42

Table 7: Establishment of the Energy Data Centre (EDC) and the Energy Digital Platform (EDP) 44

Table 8: Effective connection of central heat supply systems with the activities of energy communities 44

Table 9: Information dissemination campaign 45

LIST OF Figures

Figure 1: Scheme of the methodological procedure for the preparation of the diagnostic report 8

Figure 2: Diagram of barriers, drivers and actions 33

LIST OF SOURCES

1. <http://www.odbornecasopisy.cz/elektro/casopis/tema/ministerstvo-zivotniho-prostredi-podpori-komunitni-vyrobny-elektriny--17469>
2. <https://akecr.cz/>
3. https://cinea.ec.europa.eu/life_en
4. <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/home>
5. <https://ekonomickydenik.cz/zakulisni-hra-o-komunitni-energetiku-distributori-varuji-pred-riziky-a-odmitaji-udajne-moc-vstricne-podminky/>
6. https://energy.ec.europa.eu/topics/oil-gas-and-coal/eu-coal-regions/initiative-coal-regions-transition_en
7. <https://hrajemskrajem.msk.cz/centrum-verejnych-energetiku/>
8. <https://iuhli.cz/sev-en-energy-vstupuje-do-solarni-energetiky/>
9. <https://oenergetice.cz/energeticka-legislativa-cr/komunitni-energetika-eru-vydal-navod-jak-postupovat-pro-sdileni-elektricke-energie-v-bytovem-dome>
10. <https://opzp.cz/dotace/11-vyzva/>
11. <https://opzp.cz/dotace/37-vyzva/>
12. <https://opzp.cz/dotace/45-vyzva/>
13. <https://web.archive.org/web/20190930145529/https://www.cezdistribuce.cz/cs/informace-o-spolecnosti/zakladni-informace.html>
14. <https://www.ceps.cz/cs/o-nas>
15. <https://www.denik.cz/ekonomika/komunitni-energetika.html>
16. <https://www.dotaceeu.cz/cs/jak-ziskat-dotaci/vyzvy/obdobi-2021-2027/01-operacni-program-technologie-a-aplikace-pro-kon/obnovitelne-zdroje-energie-male-vodni-elektrarny-v>
17. <https://www.ecuk.cz/poznejte-nas/>
18. <https://www.eib.org/en/products/advisory-services/elena/index.htm>
19. <https://www.eru.cz/o-eru>
20. <https://www.eucityfacility.eu/home.html>
21. <https://www.fbadvokati.cz/cs/clanky/8912-prukopniky-komunitni-i-lokalni-energetiky-jsou-samospravy-prekazkou-byla-dosud-byrokracie>
22. <https://www.mpo.cz/assets/cz/energetika/strategicke-a-koncepcni-dokumenty/2023/4/Vychodiska-aktualizace-Statni-energeticke-koncepce-CR-a-souvisejicich-strategickych-dokumentu.docx, str. 6-8>
23. <https://www.mpo.cz/cz/energetika/>
24. <https://www.mpo.cz/dokument1926.html>
25. <https://www.mpo-efekt.cz/cz/ekis/strediska-EKIS>
26. https://www.mpo-efekt.cz/upload/6cd6d069e64a28ff10122424d61b29ea/vyzva_efekt_4_2023_epc-analyza_1.pdf
27. https://www.mpo-efekt.cz/upload/6cd6d069e64a28ff10122424d61b29ea/vyzva-npo-6_2022_enko-mas_1.pdf
28. <https://www.mskec.cz/>
29. <https://www.nrb.cz/produkt/energ/#kontaktni-formular>
30. <https://www.nrb.cz/produkt/uspory-energie/nove-uspory-energie-optak/>
31. <https://www.nrb.cz/produkt/uspory-energie/uspory-energie-oppik/>
32. <https://www.nrb.cz/verejny-sektor/financovani/zivotni-prostredi/>
33. <https://www.nsmascr.cz/o-spolku/ps-a-platformy/platforma-ns-mas-pro-komunitni-energetiku/>
34. <https://www.ote-cr.cz/cs/statistika/mesicni-zprava-plyn/pocty-opm-dodavatelu?date=2023-01-01>
<https://www.hytep.cz/platforma/clenove-platformy/teplarny-brno-a-s>

35. <https://www.planobnovy-cr.cz/vyhlasene-vyzvy>
36. <https://www.predistribuce.cz/cs/o-spolecnosti/o-nas/>
37. <https://www.program-life.cz/>
38. <https://www.sfzp.cz/dotace-a-pujcky/modernizacni-fond/programy/>
39. <https://www.sfzp.cz/dotace-a-pujcky/modernizacni-fond/vyzvy/detail-vyzvy/?id=19>
40. <https://www.sfzp.cz/dotace-a-pujcky/modernizacni-fond/vyzvy/detail-vyzvy/?id=22>
41. <https://www.sfzp.cz/dotace-a-pujcky/modernizacni-fond/vyzvy/detail-vyzvy/?id=17>
42. <https://www.sfzp.cz/dotace-a-pujcky/modernizacni-fond/vyzvy/detail-vyzvy/?id=18>
43. <https://www.socialenergyplayers.eu/>
44. <https://www.tacr.cz/program/clean-energy-transition/>
45. <https://www.uken.cz/o-nas>
46. <https://www.urban-initiative.eu>
47. <https://www.veolia.cz/cs/o-veolii/struktura-spolecnosti/energetika>

LIST OF ABBREVIATIONS

ACE CR	Association of Community Energy of the Czech Republic
CCUS	Carbon capture and utilization
CEC	Citizen Energy Communities
CEET	Centre for Energy and Environmental Technologies
CEP	Clean Energy Package
CET	Clean Energy Transition
CINEA	European Climate, Infrastructure and Environment Executive Agency
COME RES	Community Energy for the uptake of renewables in the electricity sector
CPE	Centre for Public Energy
CPTS	Czech Energy Transmission Systém
CR	Czech Republic
CZK	Czech koruna
CPTS	Czech Energy Transmission System Česká elektroenergetická přenosová soustava
ČEZ	Czech Energy Plants České energetické závody
DG ENER	Directorate-General for Energy
DG REGIO	Directorate-General for Regional and Urban Policy
ECUR	Energy Centre of the Ústí Region
EDC	Energy Data Centre
EDC	Energy Data Centre
EDP	Energy Digital Platform
EG.D	Electricity and Gas Distribution
EIB	European Investment Bank
ELENA	European Local ENergy Assistance
EnCoLAG	Energy Community Local Action Group
EKIS	Energy Consultation and Information Centres Energetická konzultační a informační střediska
ENERG	Improving energy efficiency in business
ENERG ETS	Improving energy efficiency and reducing greenhouse gas emissions in industry within the EU ETS
ENERGov	Energy efficiency in public buildings and infrastructure
EPC	Energy Performance Contracting

ERDF	European Regional Development Fund
ERO	Energy Regulatory Office
EU ETS EU	Emissions Trading System
EU	European Union
EUCF	European City Facility
EUI	European Urban Initiative
HEAT -	Modernisation of Heat Energy Supply Systems
HOUSEnerg	Energy efficiency in the residential sector
CHS	Centralised heat supply
IEMD	Internal Electricity Market Directive
KOMUENERG	Community Energy
LAG	Local action group
Lex RES 1,2,3	Lex Renewable energy sources 1,2,3
LIGHTPUB	Modernisation of public lighting systems
MEC	Moravian-Silesian Energy Centre
MIT	Ministry of Industry and Trade
MW	Megawatt
MWh	Megawatthour
MWp	Megawatt peak
NDB	National Development Bank
NGOs	Non Governmental Organisations
NGS 2030	New Green Savings
NRP	National Recovery Plan
NUTS	Nomenclature of Territorial Units for Statistics Nomenclature des unités territoriales statistiques
ORP	Municipality with extended scope Obec s rozšířenou působností
OPE	Operational Programme Environment
OPE+	Operational Programme Employment Plus
OPJT	Operational Programme for Just Transition
OPTAC	Operational Programme Technologies and Applications for Competitiveness
POPFK	Support to the Restoration of Natural Landscape Functions Podpora obnovy přirozených funkcí krajiny
PV	Photovoltaics

RDP	Rural Development Programme
RE	Renewable energy
RECAH	Rural Energy Communities Advisory Hub
RED II	Renewable Energy Directive II
RES	New Renewable Energy Sources in the Energy Sector
RES	Renewable energy sources
SCLLD	Strategy of Community Lead Local Development
SECAP	Sustainable Energy and Climate Action Plan
SES	Secondary energy sources
TACR	Technology Agency of the Czech Republic
TESS	Thermal energy supply systems
TRANSCoM	Modernising transport in the business sector
TRANSGov	Modernisation of public transport
TS/DS	Transmission system/Distribution system
UCE	Union for Community Energy
UIA	Urban Innovative Actions
UK	United Kingdom
US	United States