



**A1.3 Mapping of good governance techniques
and internal operating models to understand
the motivations and expectations of energy
community members**

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About

Activity A1.3 aims to examine the organisational structures decision-making processes and governance techniques employed by energy communities. In order to prepare Collection of best internal operation and governance practices of energy communities, members of these energy communities operating in the participating countries (having experience in RECs) shall be invited to the national workshops and share their personal roles, efforts, goals and their expectations and motivations set back when they joined an energy community.

Moreover, the research underdone in the scope of this activity will provide information on the community building and democracy techniques and principles - transparency, accountability, participation, fairness, and inclusivity - of RECs to assess their impact on good governance. The aim is to assess how well the energy communities align with the principles and identify the areas for improvement.

Decision-making processes within energy communities, will also be examined, looking at how community members are involved in decision-making, the mechanisms for consensus-building, and the extent of democratic participation.

Activity leader: KSEENA

Partners involved: STRIA, IMRO, JAIP, IRENA, KSEENA, REDASP, DIT, and NEK.

Workshop

The national language workshops (1/participating PPs) will be held in situ or online, depending on the possibilities and capacities of the PPs and their geographical location. Based on the input from the workshop, the project partners will fill in the national questionnaire, which will serve as a basis for the Collection of best internal operational and governance practices of energy communities (D.1.3.1).

A preliminary agenda for the workshop is presented in Annex I_NRGCOM_A1.3_workshop agenda.

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Questionnaire

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Slovakia (NEK) PP12 National Energy Cluster

- **How to build and maintain a cohesive community?**

300–1000 words

On such a question, we first clarify the meaning of the word community that (from Latin Communities) means a community. The very expression of the community comes from the Latin word foundation common to Communicate, communication - to communicate.

In the conditions of the Slovak Republic since 1991, many of the state's competences have been transferred to the municipal authorities, thereby creating a local self-government. The municipality is thus the basic civic community, in the community it is possible to make decisions in a democratic, horizontal, participatory way, ideally without delegations, especially direct voting through positively set processes and techniques. These techniques have confirmed, for example, the experience of various social movements founded by citizens in the past thirty-five years, especially in cases of organizing the first events of mass civil disobedience.

Energy communities and community energy in Slovakia is regulated by Act no. 251/2012 Coll. on Energy and Amendments, as amended. The usual legal form of the functioning of the energy community (EC) and the Energy Communities (EC) in Slovakia is an officially registered legal entity, which in most cases is an interest association of legal entities, but are not excluded and therefore other legal ways of establishing communities such as it is used. Roughly in the same proportion, the extended form of cooperatives. The energy communities are based on three basic principles:

- Own and control their consumers, municipalities or small and medium-sized enterprises
- Communities are open to all and participation in them is voluntary, all members can participate in the management and control of their activities
- They are oriented to environmental and social benefits for their members, not to financial profits

Thus, the energy community in Slovakia is a community of consumers who cooperate on the project aimed at fulfilling the energy needs of their members. It may be the common ownership of renewable energy production (eg photovoltaic power plants or biomass boilers), its distribution and storage, charging stations and the like. The current Slovak practice largely prefers interest associations of legal entities in the field of energy and ecology as well as related industrial activities and production and distribution of energy as cluster organizations /clusters.

In the community, however, from this point of view the consensus can be considered impossible. The maximum size of the group of people in which everyone will be heard and everyone will be answered is approximately a group of 15 to 20 people. This is no longer possible with a higher number. This also applies to energy communities, which can be considered sustainable, if the so-called. EKO - communities.

The solution is a hierarchical way of arranging a system in which each element or article, with the exception of the top, is subordinate to a single superior element or article. The internal organizational structure thus chosen is a proven way to manage and organize everyday life of the energy community.

The basic features of the community are the common territory, immediate or mediated social relationships between people living in this territory and the feeling of community, coherence people identify with the community. A number of economic, political, cultural and other activities that are necessary for the life of society and its members are carried out in the communities. The community (in addition to the nationwide operating, such as professional groups) is therefore based on the physical proximity of its members and is also characterized by the neighbourhood institution. Neighbourhood does not only mean that people live side by side in a certain area (in the house, street, neighbourhood, village), a neighbourhood is also a certain way in which the inhabitants of the community carry out social interactions, how they organize joint activities in solving community problems and its members (its members. In our case, self-help activities for achieving energy goals). If there is no neighbourhood institution in the territorial grouping of people (examples may be newly built city housing estates), we cannot speak of it as a community, but only as a cluster of persons inhabiting a certain territory (registered office). It is the neighbourhood that creates a community spatial group as a subsystem of society, and thanks to its neighbourhood people identify with the community, receive social statuses and tasks for the authorized community members.

Creating an energy community that is not only a community of owners, but a truly functioning team of people, is a process that will never be completed in an apartment building. Because of the diversity of things that are solved in the house, for various impacts of the problems solved on different people, constantly changing assemblies of owners and tenants of flats and also for different and over time developing the interests of these people. Creating a functioning energy community is a way, not a goal.

- **How to build trust?**

300-1000 words

We believe that the answer to this question is particularly important in the case of energy communities that are created to address the energy needs of users (in particular) of municipal real estate - members of families (natural persons) or other tenants (natural or legal persons).

In a cohesive community, people from housing or even the other mentioned participants in the use of non-residential premises have a good feeling for a long time if they are satisfied economically and also in terms of interpersonal relationships in the house or other (e.g. municipal) building. From an economic point of view, "satisfaction", for example, may be a situation where community members know what they pay for the usual prices on the market, they have explained who and also who and what can and can not do in specific matters for them, they have accepted the rules and trust the set process of resolution of possible disputes between them. Building trust is the basic (fundamental) role of the community leaders. Such leaders, according to the experience so far, are most often specific people, initiators of the establishment and creation of an energy community. If such people, according to their own internal order, do not gain confidence in the first elections to lead (management) community, it depends very much on whether they will lose vigor or will continue to be active members.

In most cases, ordinary members of the energy community, in most cases, delegates to specific persons whom they occupy into various bodies created according to the basic document of the already established energy community. Some of them then carry out control and supervision of others. In particular, the executive and particularly statutory bodies (such as community management, consisting of the Board of Directors and its chairman) encounter practical life and obstacles arising from the application practice of applying legislative conditions in the given space and time. The confidence of the members of the community towards these authorities is based on individual trust towards their individual members, which each of them must (if they want to) build only alone and especially, for a long time.

Slovak experience is such that frequent changes in legislation with structural modifications and personnel exchanges for almost all executive components of the state after each election create at the lowest levels of users of these unnecessary changes for them rather distrust than confidence in the system. Therefore, on the question of "how to build confidence?" In Slovakia, we must also take into account the irreplaceable role of the state and its competent authorities representing the highest executive power in the country. That this phenomenon also applies to the operation of the relevant components of the self-government for the daily practical life of the energy community is probably clear to everyone.

Building energy communities will contribute to Slovakia to the creation of a decentralized system, based on local solutions, to the faster replacement of fossil fuels with clean and renewable energy sources, while also serving as a tool to stabilize energy fluctuations and contributes to energy independence.

Members of the Energy Communities (EC) within these forms of existence may be, for example, only natural persons, or small businesses, or higher territorial units, respectively. municipalities in the territorial district of the higher territorial unit in which the EC is located.

The energy community using renewable energy sources (RES) is also considered to be an energy community in Slovakia. Its specificity is due to the fact that electricity comes from renewable sources of energy or biomethane, while the RES community is also a participant in the gas market.

EC and EC definition from the Energy Act (§111a):

The energy community is a legal entity that is based on the purpose of electricity production, supply of electricity, sharing of electricity, electricity storage, aggregation activity, electricity distribution, charging station operation, or performing other activities and providing other services related to ensuring the energy needs of its members or shareholders (hereinafter referred to as “a member”) with the aim of implementing environmental, economic or social community benefits.

- **How to define roles when building an energy community?**

300–1000 words

In this section, NEK draws attention to its NRGCOM partners to a specific situation in Slovakia, when our national legislation consistently distinguishes energy communities either in the form of entities (1) of the Energy Community or as (2) Communities producing energy from renewable sources. The differences between the effects of energy communities in the form (1) or (2) have been divorced and explained in detail within the activity of A.T.1 and A.T.1.2., But at this A.T.1.3 the concept of energy community.

It is sufficient to state so much that a legal entity in Slovakia can be considered as an energy community or a community producing energy from renewable sources, it is necessary to fulfill a larger number of conditions pursuant to the provisions of § 11a of Act no. 251/2012 Coll. on Energy and on Amendments and Amendments to Certain Acts, as amended (hereinafter referred to as the “Act”), which also regulates the issue of proving the fulfilment of the conditions there. Pursuant to this legislation, it is a legal entity, but the law does not explicitly regulate a specific form of a legal entity whose activity is not considered to be carried out for the purpose of making a profit. Legal entities within the meaning of other legislation must have their internal structures and thus according to a special regulation, founding document or statutes of energy communities must also have their management structures and their own (democratically elected) management.

Often, at the time of building an energy community, the first basic question is that how will it be possible to store unused energy, or legally and, in accordance with all regulations, to advance to customers outside the Community at the time of building an energy community? Equally

important is the finding of a fair and in a community of acceptable own system for cases where a participant has a higher energy consumption and does not know whether it can legally remove energy from another supplier? However, it is always true that the role of management of the energy community is not often unnecessary and complicated new schemes, but as simple as possible and, in particular, to effectively proceed. In practice, this can also be taken over at the time, in the past or in another similar environment of proven various procedures.

If the Slovak legislation for building an energy community sets quite strict and strict conditions, the state should equally intensively take on its irreplaceable task in the provision (especially by the European Union of Supported Financial and Organizational) aid to build and the society-wide of the extraordinarily necessary energy sphere of energy Communities.

European renewable energy sources (RES) expect development in 2024, but further legislative changes will be needed for their proper use in Slovakia.

That, in the field of use of RES Slovensko compared to the EU and V4 countries, it is still lagging behind, for example, it presents the claim of Columbus Energy, according to which, in 2023, the number of new installations increased, but the total performance of photovoltaic power plants (FVE) is only 0.6 gigawatt so far ((GW). For comparison, the company said, for example, that in the Czech Republic, solar power plants with a capacity of 3.5 GW in Hungary are installed in Hungary and in Poland with more than 13 GW.

"The Slovak Energy Mix should contain at least 23 % of energy produced by renewable energy sources by 2030. Nevertheless, in 2023 the state support was minimal for their installation. Slovakia could be installed up to about 13 Gigawatt Peaks (GWP) It will help to approach the fulfilment of his carbon neutrality commitment by 2050, "said Milan Lempochner of Columbus Energy.

A community producing energy from RES is a legal entity that is based for the purpose of producing electricity from renewable energy or biomethane sources and which can simultaneously be based on the purpose of supplying electricity or gas, sharing electricity from renewable energy sources or biomethane, storage of electricity from renewable energy sources of energy sources , aggregation activities, electricity distribution, charging station operation or performance of other activities or providing other services related to the provision of energy

In terms of competence, we can divide energy communities as follows:

- 1) locally - an example is photovoltaic on the roof of the apartment building;
- 2) Local - the basis is the use of RES within the municipality or self-government;
- 3) Nationwide - allows you to share energy from a larger source of RES despite a greater distance.

needs of its members in order to implement environmental, economic or social community benefits.

Furthermore, we distinguish three approaches to energy sharing between members in the energy community (or community), namely:

- 1) static, for example, unused electricity generates back into the distribution system;
- 2) dynamic, when unused energy is not generated and is divided proportionally according to consumption (which may not be optimal if a large amount of energy is consumed);
- 3) Hybrid and therefore combining the above two approaches.

The current state of development of management and building business models in Slovakia:

1. Compatible (with EU legislation) and relatively comprehensive and extensive legislation in the field of energy, environmentalism and organizations
2. Settled practice in cities and municipalities in the operation and custody of energy consumption with uniform principles.
3. Establishing energy communities on 3 principles:
 - Own and control their consumers - municipalities or Small and medium enterprises SME
 - are open to all and participation in them is voluntary and everyone participates in management
 - They focus on environmental and social benefits for their members and not to profits.

For this purpose, Member States should be allowed to take measures, such as providing information, providing technical and financial support, reducing administrative requirements, incorporation of selection criteria focused on community, creating targeted offer bids for communities producing energy from renewable sources or rewarding communities producing energy generating energy from renewable sources through direct support if they meet the requirements for small devices. By providing advice to applicants during the administrative procedure of granting and issuing permits through an administrative contact point, the complexity for the project petitioners should be reduced and the efficiency and transparency should be increased, among other things. Such advice shall be provided at a reasonable level of management, taking into account the peculiarities of the Member States. Uniform contact points should guide the applicant and facilitate the entire administrative procedure so that the applicant does not have to contact other administrative authorities if he / she does not wish to contact the applicant.

The tasks of the single contact point will be performed by the Slovak Innovation and Energy Agency. This new task for SIEA was approved in the amendment to the Act. no. 309/2009 Coll. on the support of renewable energy sources and highly effective combined production and on amendments and supplements to certain acts, which of the National Council of the Slovak Republic approved on 19.10.2022 and the paragraph regulating these obligations will enter into force on 1 December 2022.

The specific features of local communities producing energy from renewable sources in terms of size, ownership structure and number of projects may disrupt their competitiveness towards large entities, namely competitors with larger projects or portfolios. Therefore, Member States should be able to choose from renewable energy communities any form of the entity, if the entity can, when acting in its own name, exercise rights and subject to obligations. In order to prevent abuse and ensure a wide participation of communities producing energy from renewable sources should be able to maintain independence from individual members and other traditional market actors who participate in community or shareholders, or who cooperate with other means, such as investment.

- **How do you define a well-governed energy community?**

300–1000 words

If we wanted to simplify the topic, we would mention such a lightweight definition: "People want to be part of success". Although this definition could actually apply, we do not want to go such a shortened and simple way, but instead we will try to explore the issue deeper.

In our opinion, an important element of the work is to realize that people in management in managing things in the already built energy community will not always be successful. In the course of the planned events, such management usually fails immediately, but after the publication of the achievement of partial successes - what we highly recommend, it is necessary to agree without delay in problematic matters and separately. That in practice, it is often necessary to deal with the ever -recurrent and sometimes only supposed difficulties of at least one eternally problematic community member and therefore it should be taken into account in advance.

Part of the good management of the energy community is both management and long -term motivation for cooperation, which can also be a good means - but beware, it must always be at the right moment. It is very important to let people know in time when they do something well. Therefore, after some event, it is worthwhile to thank everyone who participated in the joint success. The result of such communication (for example, in writing in a mass e-mail) may also be sincere congratulations on success and feedback in the form of a statement of some members that they like to participate in such a well-organized energy community.

The powerful management of the energy community is characterized by the fact that their members communicate well and are personally involved in the implementation of common plans. For the efficiency of the management of the energy community, especially in the case of apartment buildings, it is more than necessary to devote enough time and attention to the internal communication of people in the house. It is a continuous search for natural leaders of the community - opinion -forming owners of apartments living in the house and their active support in organizing others, so that each apartment building in the management of the energy

community to create a functioning community from its inhabitants. Many problems can be solved by such a community itself.

As we mentioned in this example of the energy community in apartment buildings, communication and motivation is the most important role of leaders in the community. Based on the evaluation of the answers to this question from all partners of the NRGCOM project, in this activity A.T.1.3 KSENA can finally materialize as a proposal of its own definition of a well-managed energy community. We will develop this further on another question.

The Energy Community (EC) and the Energy Community (EC) implementing Energy -based energies are legal entities established for the purpose of producing electricity and related activities and implementation of environmental, economic or social benefits, and their primary purpose is not to achieve profit but to achieve sustainable and efficient and efficient Energy production and consumption, reduce energy costs, improve air quality and reduce dependence on fossil fuels. They are therefore perceived as non-profit organizations.

In doing so, the regulation is that if the non-profit organization does business and provides supplies and services beyond its activities, defined in the establishment documents at registration, it is obliged to keep independent accounting and have a trade license issued by the competent registration authority for the activity.

Electricity production in a device with installed output up to 1 MW, storage of electricity in a device with installed output up to 1 MW, aggregation or supply of electricity and production or supply of biomethane for community members is not considered a business and is sufficient to notify the Network Regulatory Office (ÚRSO). Delivery of electricity outside the community respectively.

The operation of the distribution system through the energy community is already considered to be a business.

One of the legal conditions is that a maximum of 50 % of the profit generated is distributed between the EC members according to the specified conditions of its own statutes, otherwise such activity could be considered as a business.

The essential fact is that the Community has a separate paragraph in the Act to define rights and obligations, as amended by § 35a of the law and obligations of the Energy Community, which we are as a solver and guarantor of the task A.T.1.2 PP12 - NEK has already discussed in more detail in the document Summary Report, A.A. 1.1 Survey of the legal and legislative system of the Slovak Republic and therefore in this part of the task A.T.1.2 An overview of the business models and management of the EC energy communities with reference to the previous details we are not duplicate or returning.

Participation in renewable energy projects should be open to all potential local members based on objective, transparent and non-discriminatory criteria. Part of the measures to compensate for disadvantages regarding the specific characteristics of local communities

Renewable energy generations, due to their size, ownership structure and the number of projects, is enabling communities producing energy from renewable sources to operate in the energy system and facilitate their integration into the market. Communities producing energy from renewable sources should be able to exchange energy generated through their ownership devices.

However, community members should not be exempt from the relevant costs, fees, levies and taxes that would be borne by end consumers who are not members of communities, manufacturers in a similar situation, or if any public network infrastructure is used for such transmissions. Households as consumers and communities involved in the self-recovery self-consumption from renewable sources should maintain their rights of consumers, including the right to have a contract with the supplier of their choice and change the supplier.

- **How are participants involved in decision-making and consensus-building?**

300–1000 words. Additionally, attach a diagram or an image.

If we have highlighted the importance of the position of the state in defining the role of building an energy community, we want to mention this page in this case. The reason is that participants involved in the decision-making and building of consensus (in this case our energy communities) are sometimes in a very imbalance to the other side (this is the state and its ways in creating legislative changes). In this case, we can never talk about the situation win-win (WIN - WIN), which is actually a characteristic feature of a consensus as a desired state.

Let's first look at the possible results of the two-party conflict. That citizens and companies can never win even a poorly functioning state is a bare fact. However, it happens that long-term disputes are sometimes compromised. For some, it represents a compromise and consensus not only synonymously, but although these terms are almost the same at first glance, they actually have completely different meanings.

The solution or not to resolve the conflict may end in several situations. In terms of the resulting effect of the conflict, it is particularly essential to meet the objectives, interests and needs of one, the other or both sides. We can say that if one party won what she wanted, she won. If her efforts to resolve the conflict failed, the party simply lost.

A poorly managed state often seeks to avoid conflicts in the absence of proper functioning of its public institutions and responsible for this situation pretends as if nothing has happened. The resulting effect is even greater voltage and a number of unnecessary misunderstandings. Within this situation, both sides are unsatisfied and then we call this situation a loss-loss (Loss - Loss).

The loss of the loss-the win (Loss - Vin), or the win-loss (Vin - Loss) characterizes two standing parties, when one of them manages to achieve their goal and satisfy their interests at the expense of the other party. This means that one side always remains unsatisfied and thus defeated.

A compromise means finding a possible solution when the parties give up some of their interests in favour of the agreement. The parties may come to such an agreement either by fighting or cooperation, and in this situation the winner is neither the winner nor the defeated. The parties do not take the best possible solution. The compromise at all costs has only an unrealistic solution for the result that none of them originally wanted. Thus, the parties meet their needs, requirements, interests and goals only partially. It is much easier to achieve a compromise in terms of time, but then it will be necessary to return to the problem.

Another way of resolving conflicts offers a consensus that we can fully satisfy the most important needs. The basis of the consensual solution is significant fulfilment and satisfaction of the requirements, needs, interests or goals to the satisfaction of both parties. This logically implies that the achievement of consensus is definitely not easy. It is especially time to believe that there are certainly better solutions than those that have already been submitted. Just come to them.

To be factual, we will mention the first case study the most up-to-date Slovak example a few days ago, from May 2024, in which almost all of the above situations can be identified. We believe that by the end of the summer of this year, both parties will be a consensual solution to the issue so that our energy communities will not become the long-term defeated. We can say that here we give an example only for the illustration of the work of participants involved in decision-making and (in) construction of consensus.

The conditions for connecting new resources according to the original, more complex intention of the Office for Regulation of Network Industries (ÚRSO - Úrad pre reguláciu sieťových odvetví Slovenskej republiky - Regulatory Office for Network Industries of Slovak republic) from last year were to be covered in Slovakia with a special decree. Her proposal in autumn 2023 also passed the interdepartmental comment procedure and the regulator's aim was to issue the decree with effect from 1 January 2024. After the personnel exchange at the head of the Office, the legislative process stopped and the ÚRSO finally did not issue the prepared decree.

Today, there is also a completely new proposal and legislative whirlwind, when this regulator on May 6, 2024 presented up to five new market rules for electricity, gas and heat and which have already passed a shortened comment procedure. They are to apply from 1 July 2024, because the regulations with the impact on the business environment, according to the new legislative rules in Slovakia, can only be amended on 1 July or 1 January. Originally, ÚRSO intended to submit its proposals for comments as early as March this year. Compared to this intention, however, the Office was delayed by more than a month, while the shortened comment ended only on Wednesday, May 15, 2024.

However, the proposals of this new Decree of ÚRSO are quite justifiably reaping sharp criticism. Distribution companies and heating companies do not like how the office wants to intervene in their costs and in a few days he received up to 1,375 comments. That such a procedure for the state regulatory authority without giving analyzes and reasons is miles away from solving problems is probably the best negative example. As a result of such an ostrich policy of the Office

and its unilateral avoidance of conflicts, a typical feature of the situation we rightly call a loss - loss (Loss - Loss), when they suffer not only the addressees of these changes, but paradoxically the state itself.

This is due to this authority to increase the fee for the connection of electricity production to the network by up to 233 % (from 15 % of the maximum booked capacity to 50 %), which can even further deepen the expected lack of electricity in Slovakia. Such an increase in the fee (for the so-called G-component, which is paid by electricity producers of the network operators to which their power plants are connected), according to SAPI, will bring financial problems not only to existing renewable energy sources in Slovakia, but will also mean a stopwatch for new projects.

At a time when all countries, not only in the EU, simplify the authorization and conditions for the construction of RES, according to SAPI we are again in the opposite direction. Possible approval of the increase in the fee will also mean problems for the Slovak economy, its competitiveness compared to the surrounding countries, and thus the employment and the development of the regions.

Indeed, the availability of green electricity has been one of the factors in recent years that companies have taken into account when expanding their operations, or choosing a site for new investments, creating jobs. According to the Executive Director of SAPI Ján Karaba, the developer would have to sell green electricity, for example, from photovoltaic power plants, more expensive by up to 30 to 35 Euros per megawatt-hour, for example, as a result of an increase in the G-component fee.

According to SAPI, this also means another problem for Slovakia, because after such changes it will not be able to fulfil its obligations to the European Union for 2030, which arise from the so-called. Integrated National Energy and Climate Plan (InePP). Approximately 10 billion is linked to this plan EUR to be used to reduce greenhouse gas emissions, use of green sources and increase the energy efficiency of buildings. The updated IneKP, which in the autumn of 2023, presented to the European Commission, envisages an increase in the use of renewable sources from the current 18.1 % to 23 %.

The control authorities of the energy communities (EC) are always elected in the organizational structures. Members who have voting right, including natural persons, small enterprises, municipalities, regions or voluntary associations participate in the decision -making processes. The Supreme Authority of the EC, usually in the form of the Association, is a membership meeting at which the right of voting is exercised democratically. Each member with a voting right has the same participation, and the extent of the influence of one member is limited.

Specifically, one member cannot exceed 10 % of all votes in the community, ensuring a fair representation and preventing disproportionate impact. In addition, autonomy is maintained within the EC as decisions are taken collectively at the meeting of members. The association is responsible for keeping the list of members with relevant information, thus ensuring transparency and responsibility in management. Thus, the management authorities in the EC are

elected democratically, reflecting the principles of effective control and autonomy listed in legislation.

The selected obligations for the protection of the members of the Community include a limitation of voting rights to a maximum of 10 % at membership meetings, enabling the monthly "test" membership for individual consumers, determining the maximum notice period of 3 months for changes in membership such as ownership or use rights, with shorter notice 1 month in case of relocation of a member, and granting the right to the members of the member without new obligations in the event of a change in the conditions of membership, such as an increase in deposits, provided they notify it within 1 month.

The fact that the way the energy community works in practice depends to a large extent on how the relations between members and the objectives of the Community are modified in the relevant founding document. In general, each member of the Supreme body of the EC has the same weight of the voice, which is enshrined in the statutes of the EC or EC concerned.

The fulfilment of the mission after the establishment and establishment of the EC or the EC in accordance with the internal organizational structure is provided by other, lower control authorities of the Community. Their internal action, such as the status and weight of voting rights or the specific method of functioning, precisely define the above -mentioned Supreme Authorities approved by the Internal Order, such as the EC Articles of Association.

- **What is the right approach to tackle problems and barriers?**

300–1000 words

If we build on our previous one, from a particular and very current situation in Slovakia, the present case study, there is now a nationwide problem we can now narrow to the local level. His own approach to solving problems and obstacles occurring in everyday life of every energy community must still find and appropriately solve only one particular person, or called, but also an appropriate and action team.

The key aspect in ensuring the right approach to solving future problems and obstacles is already the choice of a suitable legal form of the energy community or community. These are, for example, the flexibility, the effectiveness of management, the possibility of ensuring funding and compliance with the legal requirements specified in the relevant national legislation. For energy communities in Slovakia, we will present the used legal forms in the next question of the directly dealing part of this questionnaire.

Let us repeat only so much that the energy community is not a special legal form, but an existing legal entity who has to meet the legal criteria and must obtain a certificate from ÚRSO for electricity sharing. The chosen form in the creation of the energy community should best meet the needs and aim of the Energy Community, also with regard to the possibilities of funding from individual national projects, such as the EU Structural Funds. It is a decisive moment that is

oriented to the future and thus ensures the right approach to the solution even with later emerging problems and obstacles.

We must admit that in Slovakia, despite the existence of the legislative framework and after the first phase of the launch of the Energy Data Centre (EDC) by the state organizers of the short-term electricity market OKTE, there are still several obstacles that hinder the development of community energy, including the following ones:

Administrative barriers, such as the need for registration of the registration of the RES community in the region (VUC), where the subject has a majority of production sources, which makes it difficult to establish and operation of such communities.

Restrictions for members of the Communities, because the current regulations exhaustively set categories of possible members of energy communities for natural persons, small businesses and self-government, which unnecessarily limits the potential participation of a broader spectrum of candidates.

The unsatisfactory way of budgeting shared electricity, when the current method of clearing shared electricity, known as the dynamic method, is not optimal for apartment buildings and some energy communities. This method is particularly disadvantageous for those members of the community (household) who invest in the photovoltaic system with the same part of the other, but their consumption is lower.

Insufficient access to third-party customers' data, which is important because if entities want to be more actively involved in community energy, need to have easier access to customers' data, which is currently not sufficiently allowed.

Application of distribution fees, as distribution fees are paid in Slovakia even if electricity does not enter the distribution system, but is only shared in housing distribution. This can reduce motivation to share electricity.

NEK Slovakia is of the opinion that the best way to solve problems and obstacles to energy communities is to bring together larger interest associations (to regional or national energy, environmental clusters), or directly for this purpose established and long-term and functioning associations, unions, or Platforms, such as the National Platform of Energy and Environmental Clusters and Associations of Slovakia, which covers 8 industrial organizations with national or regional scope. These are aimed at building energy local and regional communities, energy and environmental aspects of project solutions and support of distributors and energy producers based on RES mainly from the environment of SME, housing communities and municipalities.

Here are the names and place of the scope of the following organizations:

1. National Energy Cluster NEK, Bratislava - Ružinov,
2. Ipeľský Energy Environmental Cluster Ipeek, Veľký Krtíš,
3. Regional industrial innovation cluster Rimavská kotlina Reprik, Jesenského,
4. Energy cluster of the Prešov region EKP. P

5. Trenčín energy environmental cluster Teek, Trenčín,
6. Energy Environmental Cluster of Trnava Region EEKTK, Trnava,
7. Cluster of energy communities of Slovakia KEKS, Bratislava - Ružinov,
8. National Recycling Agency Slovakia Nara-SK, Zvolen

Each of these organizations has from 10 to 50 members and considerable program, technical, personnel and technological scope of capacities and possibilities for the future successful implementation of the EC building.

- **What does a well-functioning energy community mean?**

300–1000 words

The partial answer to this question has already been answered in the previous section, in connection with another question: How to build confidence?

Therefore, we can only reiterate in this introduction that a well-functioning energy community must have those who have been trusting in their bodies for a long time and ideally, repeatedly elected them for the time they determine the internal rules of the Community. Thus, trust is the basis of good functioning.

If we claim that the emergence and functioning of energy communities are not based on the fact that their members, unlike ordinary real estate users or customer energy in the area, do not have their (especially) economic, but also other benefits, we would introduce. This is another prerequisite for good functioning.

However, energy communities not only bring economic benefits to their members, but also increase local energy security, support social cohesion and have a positive impact on the environment by reducing greenhouse gas emissions. The key to their success is to overcome administrative and legislative barriers, as well as the development of technological and financial tools that enable more efficient and more accessible electricity sharing.

Last but not least, a well-functioning energy community must have clear perspectives for future development. Responding community management to the challenges associated with the introduction of the electricity sharing system in apartment buildings may include the need for investment in photovoltaic's and consumption measurement technologies, the need for a common agreement between the owners and ensuring compliance with the valid legislation. Despite these possible problems of hiding and limiting conditions, however, the sharing of electricity offers the owners of the apartment within a well-functioning energy community the opportunity to contribute to the sustainable use of energy and at the same time to reduce its energy costs.

Community energy and the newly discovered phenomenon of electricity sharing are becoming increasingly important aspects of the transition to sustainable energy. Initiatives of the first energy communities such as NEK in Slovakia are operating similar organizations at home,

or in other countries, show the way to more efficient, locally oriented energy, based on the principles of sustainability and cooperation.

Slovakia in the EC area is at the beginning of the journey, although since 2022 the conditions of the functioning of energy communities have already been enshrined in the national legislation.

Based on the many years of experience of European states, where energy communities and communities have been operating for the second decade, we can expect a similar development in Slovakia - adopting legislative conditions is only the beginning of the process that means gradual sizzling and improving the system.

To start community energy, European resources are significantly helped when tens of millions of euros are allocated to support the energy efficiency of businesses and the installation of RES under the Slovakia as well as the Renewal Plan. A novelty in 2024 is that subsidies can receive businesses in all sectors. In the past, RES support was mainly focused on the industry.

Ensuring the same rights and obligations guaranteed by traditional energy suppliers is advantageous for both parties: consumers protect the complete legal framework of their consumer rights, and energy communities can offer consumers more attractive products, increasing their profits.

According to a regulation on renewable energy sources, energy communities must generally comply with the same rules for protecting consumers as traditional energy suppliers. However, since the establishment of energy communities may require high financial investments, it is understandable that there may be additional obstacles to the entry or leaving of the Community, for example, that consumers become investors if they want to be supplied with such energy or the length of time while this investment returns when they leave. Energy communities should clearly state these provisions on their website and in their contracts.

To make consumers feel comfortable when entering energy communities and communities were doing well, it is important that they guarantee some fundamental consumer rights. Consumers should:

- have access to clear and complete information before the contract is concluded
- To be able to compare offers of different energy communities through independent pricing tools
- Have access to effective ARS dispute resolution systems
- have the right to change the supplier and the guarantee that they will not be disconnected
- Use a higher customer service standard
- To be sure that their data is treated in accordance with the provisions of GDPR.

- **How to establish and keep a well operated energy community?**

300-1000 words

We can already say that building sustainability requires the whole community. In other words, the involvement of the community is the basic prerequisite for long-term success. However, this is usually preceded by several important steps, which include, in particular, the initiation of the idea of the creation of the community and the existence of the prerequisites for successful implementation, which is the basis for the future functioning and sustainability of this idea.

The Energy Community must have treated contractual relations with members of the Community, the system operator and, if it has concluded a contract for the associated electricity supply, the resolution of liability for the deviation and the data provision contract with OKTE. In the event that the own production of the members of the Community does not cover the volume and course of consumption (greater), it will be necessary to have a contract for the purchase of electricity on the market and probably also a contract for the provision of a collection point flexibility if the community is considering benefit from the position of the integrated aggregator.

It is also important to budget shared electricity, which is currently on the basis of a dynamic model, which distributes the produced electricity among the members of the group sharing group according to their actual consumption. However, this method may be disadvantageous for apartment buildings as it prefers households with higher electricity consumption. Therefore, it is important to agree to the rules for the distribution of produced electricity between the owners of the apartment, which may include static or other distribution methods before the establishment of the energy community.

However, if the Energy Community operates a local distribution system in accordance with the Energy Act, it does not apply to the prohibition of possessing, developing, managing or operating a device for storing electricity or charging station for other than own use pursuant to § 32a par. 1. The Energy Community is obliged to enable all its members to use the benefits associated with the Energy Community, regardless of whether the electro energy equipment of a member of the energy community is connected to the local distribution system of the energy community or is connected to another distribution system.

If the Energy Community asks for, the distribution system operator is obliged to ensure that the local distribution system of the energy community is connected to the energy community of operation or administration of the local distribution system on the basis of a contract of operation or administration of the local distribution system. The remuneration for the operation or administration of the local distribution system must ensure the payment of the costs of the distribution system operator. The distribution system operator has the right to refuse to conclude a contract for the operation or administration of the local distribution system if the safety or protection of health at work is endangered during the operation or administration of the local distribution system. If there is no agreement on the contents of the operation of the operation or administration of the local distribution system, the Office will decide on it on the proposal of the Energy Community.

Consistent monitoring and ensuring fulfilment of all duties, but also the use of the life of the energy community, is the work of its members of the selected management, as best as possible to maintain a well -functioning energy community.

Distribution and storage or energy production is in fact in the current state of development in Slovakia only in the beginning, but several comprehensive business and implementation projects have already been elaborated and approved and from 1 July 2024 the range of possible methods for calculating the dynamic monitoring method and participation - operating on the functioning of the EC. The main problem for several years was to ensure stable operation of the transmission system and the rate of local or local involvement of the EC into it.

SEPS issued the conditions for procurement of support services and rules for the participation of the EC in them and requires the EC to overcome the conditions for procurement and involvement in the services of energy networks in Slovakia within the qualification phase of its competence.

Today, we cannot talk about any typical Slovak model of management and distribution within the management of the EC, so only known and adapted models for procedural management in SMEs and industrial energy clusters are applied.

A special benefit in the construction of information, technical and theoretical databases and the EC is the creation of the National Platform of Energy and Environmental Clusters and Associations in 2022, in which 8 major regional and national organizations were involved in Slovakia today.

The essence of creating a successful and well -functioning EC or EC is primarily the care of its participants, partners and customers

To do this is necessary:

To ensure that the energy community uses real and justifiable price comparators in its production and services provided

Although energy communities are already offering electricity consumers in many regions, they often do not know about it, because their offers are not listed in places where consumers are looking for the best offers: in online prices comparison tools. Price comparators. For both energy communities and consumers, it is that energy communities present their offers in available comparators, and also ensure that the information is accurate and up -to -date. With the approaching revision of the electricity directive, national regulatory authorities should create independent databases that will contain information on all offers available in the energy market. Suppliers - in this case energy communities - should be obliged to provide up -to -date information about their offer for these databases, and tool operators should have free access to these databases. If energy communities are no longer accepting members, they simply inform the competent authority and remove the offer. In this way, communities can gain new members and better inform consumers about the best prices on the market.

A well -functioning EC must always be able to find the solution of topics and questions such as:

- Building a community and its structures,
- Transfer of experience and education,
- Specifying target groups of customers and their priorities,
- Knowing the needs and expectations of the EC partners and customers,
- Teamwork,
- Communication and business strategy and customer operator technology,
- Plan to address and manage to overcome conflicts and risk recognition,
- Customer Protection Rules and related EC Code of Ethics,
- Transparency and correctness of functioning.

● **What organisational structure do you find most appropriate for well a well-functioning energy community?**

300–1000 words. Additionally, attach a diagram or an image.

The basic concept of energy community was supported by EU legislative regulations, which still focus on increasing the share of RES and improving energy systems in the Member States. One of the main legislative events that support the development of electricity sharing is the revision of the Renewable Energy Directive (Red II), which promotes the creation of energy communities and energy communities focused on production, consumption, sharing and storage of energy from renewable sources.

In the Slovak Republic, this European legislation was transposed into national law through the amendment of Act no. 251/2012 Coll. on Energy and on Amendments to Certain Acts and by adopting the Decree of the Office for Regulation of Network Industries no. A. 207/203 Coll. Definitions and rules for energy communities and energy communities.

For the appropriate application of the community energy system, let us repeat the most appropriate for the new energy communities and in Slovakia the current legal forms:

Civic Associations (OZ) are traditional and relatively simple (basic) forms for groups with fewer members (natural persons), where the main goal is not to profit, but the common production and consumption of electricity. The civic association may be suitable for local initiatives and communities that want to invest together, for example, in renewable sources and share the energy produced.

Cooperatives and this type of legal form is suitable for groups of entities (natural or legal persons) that want to cooperate more closely and have common economic, social or cultural needs. In the energy sector, the cooperative can be effective in situations where a high level of involvement of members and their interest in long-term sustainability and energy independence is expected.

Non-profit organizations, in which the primary aim of their members or shareholders is not to generate profit, but to reinvest income into their main activities, which support, for example, electricity sharing and ensure the development of the community.

Interest associations of legal persons, whose members may be legal entities, which may only be legal entities, which, in particular in the case of apartment owners or other real estate communities in the vast majority of such specific energy communities, is not feasible.

We do not forget that, despite many characteristic features and common denominators, but the development of community energy in EU countries is largely formed by their specific legal, economic and social context.

In addition to the environmental and social benefits of community energy, the potential, under certain conditions, also contributes to the economic recovery of the regions. This aspect should be adopted if, in fact, not everyone, but at least most of the EC participants.

Therefore, it should also apply an imbumer goal in choosing suitable management personalities that the motivation of every good EC management (already as a whole) cannot always be just a potential savings or any possibility of drawing financial support.

For future success, in the conditions of the Slovak energy market, we expect the cooperation and action of the central institutions.

The condition of the success of community energy in practice will be the achievement of symbiosis and a reasonably functional partnership between the state administration, self-government, civil society and, last but not least, the private sector.

Since the EC are organized and structured in the vast majority than small and medium-sized enterprises, it is important to ensure their functioning and management in RES conditions as

Figure1 shows a simple working model of implementation and management of RES in the conditions of a model industrial cluster organization from the Segment of the Slovak SME within the built EC to address the introduction of specific designs of RES into its energy economy. The scheme shows the company as a system (containing management, staff and production process activities), which enters energy E, which is a combination of RES with conventional energy sources (KZE) according to such a corporate energy mix. Systemic bonds in the diagram: 1, 2, 3, 4, show the process of implementing the intervention for the introduction of RES and binding 5 is a feedback response from products and services and their impacts on further information and management of the EC.

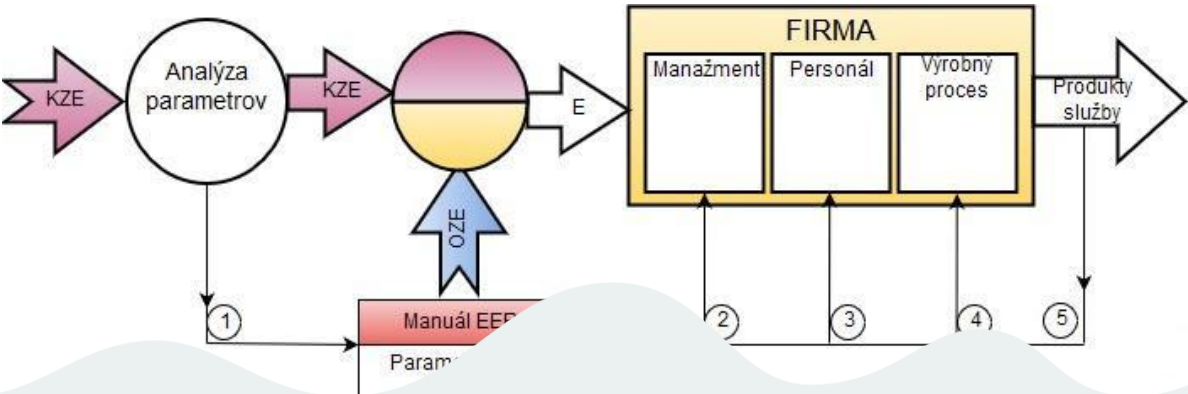


Image 1: Model of RES implementation in an industrial cluster organisation within the EC

Source: Own creation of NEK 2022

According to these principles, one of the most effective changes is to be fundamentally management of internal management processes in the EC and EC. The transition to new management methods also enables new innovative approaches and new information technologies, which are part of the managerial information system and the subject of a separate, relatively extensive policy of supporting clusters management in the future. In doing so, this development is intended to focus on quality and improvement (innovation and new approaches) in projects, processes and products of the cluster.

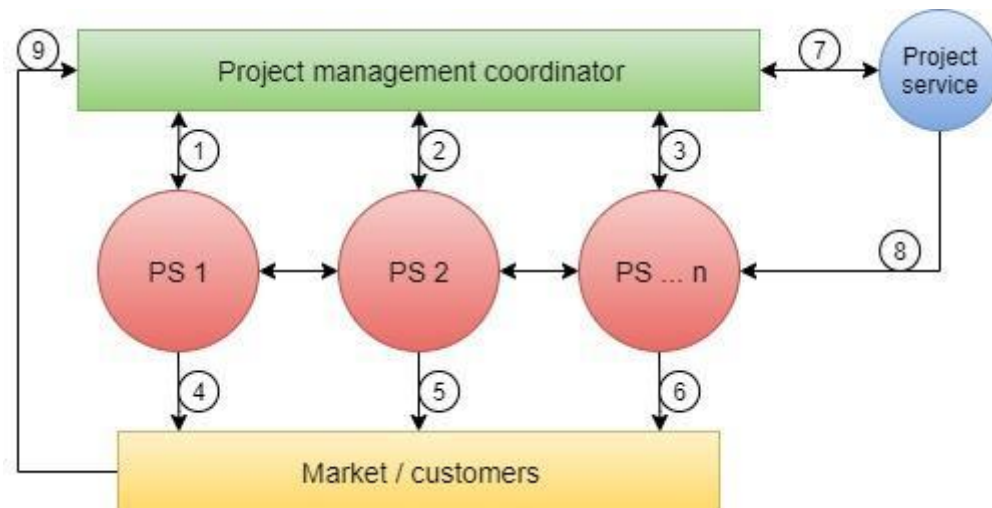


Figure 2: Coordination of projects and supplies for energy community customers

Source: Own creation of NEK 2022

Scheme in Figure 2 describes the coordination of projects and supplies for customers of the energy community within the process system of cluster management system

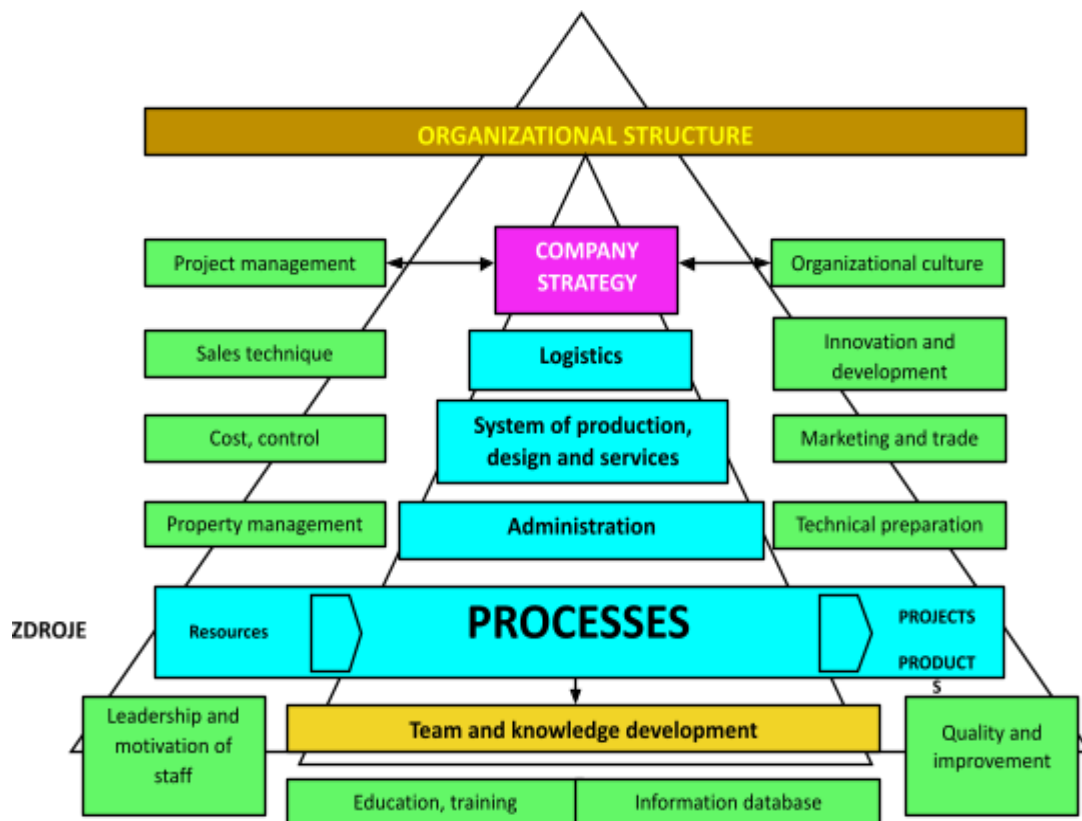


Figure 3: Model of Procedural Project Management System
 Source: Own creation of NEK 2022

The scheme in Figure 3 shows in the process organizational structure built on the classic hierarchical pyramid model decomposition of processes based on processes. The carrier skeleton is when tracking the diagram from the bottom up of the processes and their outputs - products and projects that enter the essential factor of activities - the development of the project team and its knowledge - these are influenced by elements - management and motivation of staff, education, training and knowledge from information databases on the issue of solved projects. In doing so, this development is to focus on quality and improvement (innovation and new approaches) in the projects and products of the company.

- **Who comprises our target audience?**

300-1000 words

A typical energy community is actually consisting of consumers who, as members of this community, cooperate on the project focused on fulfilling their energy needs. It can be the common ownership of energy production equipment (eg from a photovoltaic power plant or biomass boilers), as well as its distribution and storage or operation of charging stations and the like.

Members of energy communities within these forms of existence are sometimes only natural persons or small businesses in Slovakia, but they may also be higher territorial units (VÚC) respectively. municipalities in the territorial district of the HTU, in which the relevant community is based. If the produced electricity comes from RES or biomethane, the energy community is also a participant in the gas market. Thus, it is based on the fact that our target group should be those ordinary consumers in which the apartment owners' communities can be identified.

When properly setting up the energy community, it can radically change the way we perceive and use electricity. It has potential especially when using support programs of rapid return and reducing energy consumption costs. The indisputable advantage is also the reduction of the burden on the distribution network and a significant reduction in building emissions.

We recall that the sharing of electricity has been created from the need to optimize the use of excess electricity produced from RES within certain communities or groups of customers (energy communities or communities). This process makes it possible to distribute the electricity produced more efficiently between several offtake points, thus contributing to increasing energy efficiency and supporting the use of RES. Electricity sharing itself is a process in which electricity is produced from renewable sources or any source within a certain community or group of customers shares among several offtake points. Electricity sharing in Slovakia is secured and coordinated through the Energy Data Center (EDC), which ensures data processing, consumption monitoring and electricity production in all engagement sites involved, as well as clearing shared electricity between community members.

As we mentioned, we clearly consider our target group to be the owners of the apartment owners, as the number is the largest group of consumers, which through the use of the energy community system can have the following two main benefits for their members:

First, the apartment owners community can use electricity sharing to cover electricity consumption not only in the common areas of an apartment building, but also directly in individual flats. In this way, apartment owners can access access to greener and potentially cheaper electricity.

Secondly, at the same time, the value of their real estate can also increase and improve the overall energy evaluation of the building. The production of electricity can be carried out through photovoltaic panels installed on the roof of an apartment building or other suitable location.

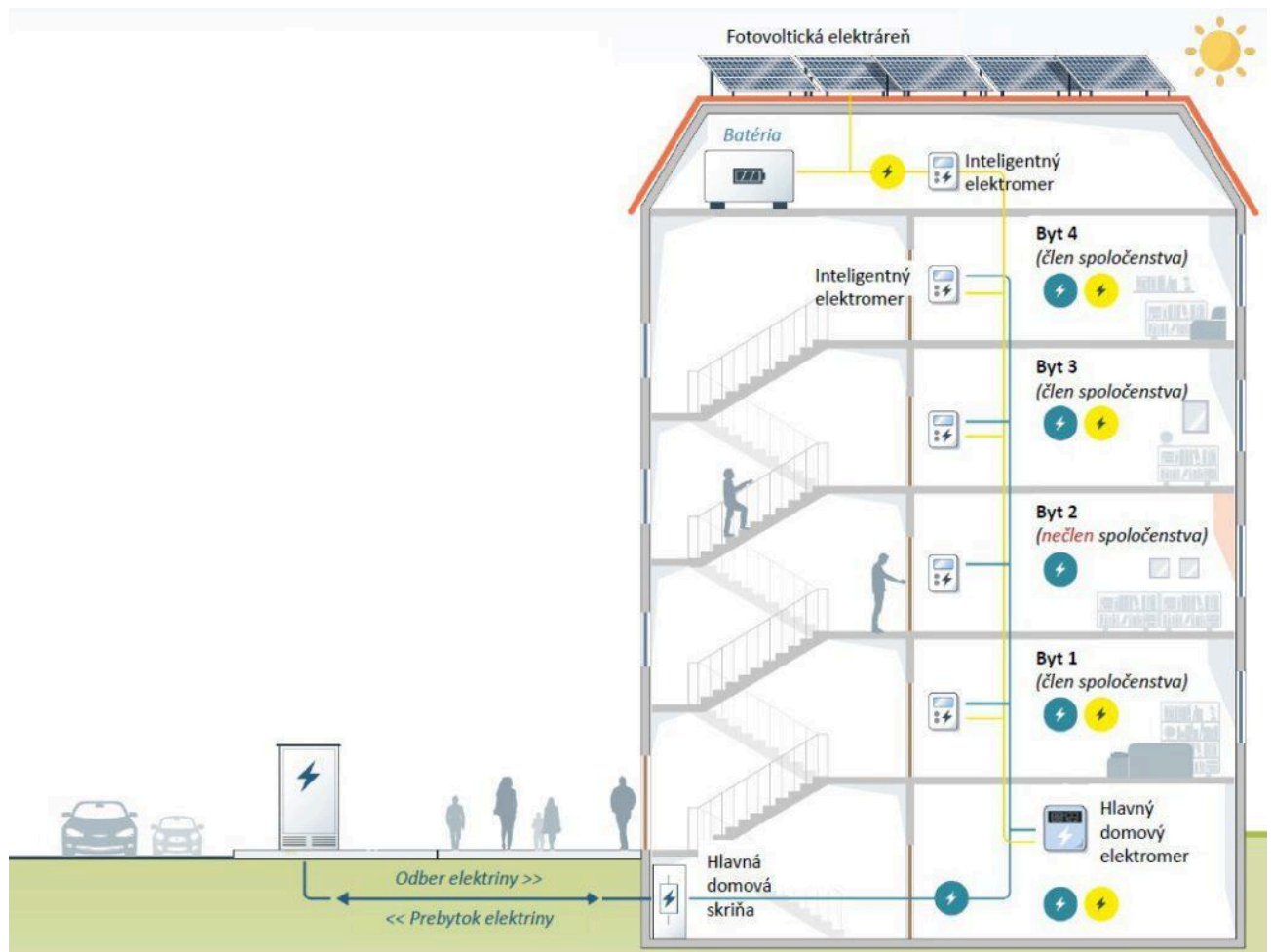


Figure 4: Illustrative image of the EC functioning within the housing communities

Source: Presentation ENERGETICKÉ SPOLOČENSTVÁ A ZDIELANIE ELEKTRINY in a conference Energetické spoločnosti 14.3.2024

In order to create and functioning such a community, it is essential that the apartment owners agree on the way they share (establish an energy community), set the rules for the distribution of electricity produced and ensure the technical and administrative conditions necessary for sharing. This includes the installation of the necessary technology, such as intelligent measuring systems capable of recording real -time production and electricity consumption. It is also necessary to register a group sharing group in EDC operated by OKTE.

Thus, the sharing of electricity in the community of apartment owners through a functioning energy community operates through the EDC OKTE. This system technically allows you to share electricity produced from renewable energy sources or other sources between multiple off take points, regardless of who is the supplier of electricity at the given off take points. The sharing process does not require any fees, which is one of the main benefits.

We believe that the NRGCOM project outputs will serve to develop new energy communities in the largest number of EU Member States not only in the target group we identified, but across our energy market participants.

- **Why is it important to have an active community behind the energy community?**

300–1000 words

To answer this question, we will help with the examples of the islands that are pioneers in the transition to pure energy. The islands are faced with the import of fossil fuels not only exaggerated prices of energy, but also have problems with drinking water and, moreover, are among the regions, the most at risk of rising seas, drought and floods. They need electricity again to address a number of these threats, so it is no wonder that they take the transition to pure energy as their priority.

It is generally not known at all that approximately 11,000 islands of our planet have permanent residents. But the fact that 2,400 European islands are home to 16 million people will certainly surprise many. It is logical that solving the above problems without personal activity of members (also) energy communities in these places would not be possible at all.

If we look at the limited possibilities in more detail for these 16 million people to achieve energy self-sufficiency, which will protect the future of the islands and at the same time meet the climatic goals, we will find elementary facts that common (especially the terrestrial) person usually does not perceive: that the wind blows, the sun is blowing, the sun shines and the waves wash the shores. The use of these RES has a huge potential to reduce or eliminate the need to use energy from fossil fuels on the islands. For us, it can be found that it can be done in our home.

The ways in which the islands and their communities can change their original energy scheme are almost as diverse as the islands themselves. Several European examples have already managed to attract the world and turn the islands of the following designs. For example, the island of ærø in Denmark, with typical brightly coloured houses and paved streets, is on a good way to the full transition to RES and deservedly won the first place in the Responsible Island competition, organized by the EU to appreciate overall achievements of local initiatives in the area of renewable energy sources.

For inspiration, we also give another concrete example: according to Halfdan Abrahamsen, manager for the media and information of æro Energylab, their wind power plants have produced more energy three years ago than the island consumed - it was up to 125 to 140 % per year. Regional heating plants with built-in hot water storage tanks have long been relying on solar energy, heat pumps, biomass and bio fuels that cover about 70 percent of the heating energy need for a long time. On the smaller and isolated islands, life is "off the system" as a holiday of dreams for a busy man from the city, but for the islanders it represents an energy isolation leading to problems in the production of drinking water. These islands can also take an

example from the island of El Hierro, which is one of the smallest islands of the Canary Islands and became another winner of the Responsible Island Award on the island of Æro.

"The dedication of sea water and the subsequent water distribution are involved in energy demands of up to 40 percent. This fact was an impulse for the construction of an aquatic power plant using wind energy, which was built within the project "Sustainability Sustainability Plan", explained Santiago González, Executive Director of Gorona del Viento El Hierro, which operates the power plant.

When the wind blows, its energy spins the turbine and produces electricity. Excess wind energy is used to overdo water from the lower tank to higher positions, where it is ready to produce electricity using gravity, even at windless times. The power plant is able to cover up to 70 percent of the annual energy demand on the island. During trial operation, he even managed to provide a full 100 percent of the necessary energy up to 25 days in a row. It does not remind you of worldwide recognized Slovak solutions of pumped hydroelectric power plants in Slovakia, such as Čierny Váh - 735 MW, Liptovská Mara - 198 MW, Ružín - 60 MW, or Dobšiná (at the Pálcianská Maša) - 24 MW?

In the example of the above two small islands, we have perhaps proved that the active community is a basic prerequisite for long-term success, and this is true everywhere. We only modestly note that in our conditions it would often be enough if, instead of a long-habitual active support of the local community, there have been a number of broadly publicized anti-campaigns of individuals or organized groups to stop local green projects.

The importance of the principle of having an active community for the energy community is clearly in the existence of a set of measures and tools of management and service service, meeting the needs and expectations of not only EC members, but mainly their partners and customers. At the same time, it is always primary to manage the solution of crisis, risk and problem factors and situations, and in particular their prevention and prevention:

One of the most attractive aspects of the energy community is that the will of members often has more weight and have more decision-making power than in the traditional relationship between the supplier and the consumer. In the case of disputes, there is often a tendency to address their internally, ie within the Community. However, disputes may arise and still arise. Electricity Directive requires suppliers to use the alternative dispute resolution system and guarantee consumers the right to access the out-of-court dispute resolution mechanisms such as the Energy Ombudsman.

Since consumers in energy communities are legally entitled to the same consumer rights as non-members, the same rights to remedy and resolution of disputes as in traditional supplier-customer relations should be actively enforced in the framework of energy communities. This information must be easily available on the Community website, in the contract and their energy accounts. The energy communities that act as suppliers should use alternative dispute resolution procedures, if

- **How can we engage various stakeholders?**

300–1000 words

Before the approaching conclusion of this questionnaire, every respondent (project partner) could already have a sufficiently comprehensive overview of the issue in the preparation of his answers to the questions.

It should be true that all participants of the energy market must be given a chance to participate in the energy transformation. Unfortunately, even the other amendment to the Energy Act still does not allow them in Slovakia. If all green sources should be considered connectable, if the distributor does not prove the opposite, at least from this point of view all energy communities are directly interested parties in addressing this question.

Taking into account all this issue binding and in the relevant answers presented information on the current legislative procedure of ongoing essential changes, which were announced suddenly only on May 6, 2024, but yet with the planned efficiency from 1.7.2024 (while in time in time Preparations of answers to this questionnaire are still in May 2024), so a lot of our information would only be at the level of speculation.

At the same time, we assume and at the same time believe that ultimately common sense will prevail and even in Slovakia will not be enacted all the negative ones and it can be said that according to the initial reactions of the participants in the energy market participants compared to the European principles of using RES directly returned and even completely incomprehensible, even the Slovak economy. In the Energy Communities segment, the loss - loss (Loss - Loss) is significantly damaging the Regulatory Office for Network Industries at the URSO (Úrad pre reguláciu sieťových odvetví Slovenskej republiky - Regulatory Office for Network Industries of Slovak republic).

If, for example, the statements of our NRGCOM partners, for example, to help us with synergic effects by ordinary familiarization of the relevant Slovak authorities on the monitoring of development and by our European project focused on the energy market (with an emphasis on energy communities and the use of RES), and this one. The answer to the question asked would have a completely different weight.

We are only asked to add only the final wish that this nonsensical carousel would have finally stopped in the functioning and slowly grieving system of the energy community and that the subjects affected by this wisdom: *"LIVE AND LET LIVE"* .

- **How do stakeholders remain motivated and active?**

300–1000 words

Given the initial stage of the development of energy communities, we can use the work that deals with the research of community energy in Slovakia with a concrete focus on the first real energy community in Prešov. The aim of this work by the author of Elizabeth Gavalcová was to present this first officially registered case through an exploratory case study. Since the in question, fresh work from the ongoing year 2024 entitled "Development of Community Energy in Slovakia: The case study of the first energy community" according to its own characteristics focused mainly on studying motivation leading to the establishment of energy community and barriers defending the greater boom of community energy in Slovakia, is is, is Exactly the most appropriate mosaic to clarify the question.

In particular, it must focus on the expectations and concerns of the population that may influence their involvement in the project. Therefore, interviews with community representatives as well as other relevant actors, including the relevant state administration representatives, have been conducted to complement the view of the barriers of the development of community energy.

The results reveal that the main reasons for establishing an energy community are mainly environmental protection and an effort to reduce energy costs. It turns out that perceived barriers are quite different among representatives, but most often there is a concern for a lack of funding. The work focused on a legal person, marked as the first energy community (1.ES).

This energy community was founded as a "interest association of legal entities" according to Act no. 251/2012 Coll. on Energy and Amendments, as amended. Its initiator is a specific member of the community Ivan Satvár, who is also the administrator of 18 apartment buildings in Prešov in his company Virtual building administrator, Ltd. On 24 July 2023, the founders received a certificate of establishment from ÚRSO under number 2023os0001, as "the applicant met the conditions pursuant to § 11a par. 1 of Act no. 251/2012 Coll. about energy '.

After the formal requirement of registration 1ES for ÚRSO, it is still necessary to log in to EDC, which will only launch OKTE in July 2024, where the sharing group will be registered and assigned to it is assigned to it. Despite the fact that EDC was launched in October 2023, flexibility aggregation will not be possible next year. Sharing in this community will be budgeted by the dynamic method and will be evaluated according to how much electricity it has been taken at a given collection point proportionally. In the framework of the technical equipment of the planned community, photovoltaic panels and heating will be installed to produce electricity and heating thermal pumps. Solar collectors for water heating are already installed on some apartment buildings. From a practical point of view, some houses are currently in the project phase, when the building permit is needed. The second step will be the competition for the RES supplier. In three apartment buildings there is a competition for designers.

According to the initiator of the establishment of the Community, the affected apartment buildings are able to produce 1MW energy per year.

After this step, it will be possible to sell excess energy into the network and redistribute profit among the owners of the apartments, e.g. to the repair fund. It will also be necessary to balance the network according to the current consumption.

At the moment, however, an alternative to storing surpluses in batteries for charging cars in the parking lot is also possible. Where the excess energy will be placed at this point is not clear and it will depend on the funds raised. It should also be noted that the approval of any changes concerning, for example, the installation of photovoltaic panels is subject to the Act on the Owners of Apartment ownership to the two-thirds consent of the owners in the apartment building.

It follows from the above that even 1ES is still only in the initial phase. However, the initiator actively communicates with representatives and is looking for funds. Given its involvement, experience with RES technology and managing apartment buildings, it is possible to expect a full run for the planned activities of this energy community in the near future.

Figure 4 shows how the efforts and applications of the knowledge and experience of a cluster from the environment represented by organized by the work of five basic project management elements operate on the category of techniques and tools and providing project organizations.

The main and fundamental feature of project management in practice is that it differs from the normal form of strategic, as well as operational management in the so-called. line or staff-controlled cluster organization (which continuously produces whether it sells a group of identical products or services and operates on the basis of hierarchical gradual management), especially its temporariness, one-off, assignment of material, human, technical or financial resources and its existence is purposefully linked to specific output (result) for the customer.

The main element of any project and management is the project itself. It is a unique sequence of activities and tasks that has: given a specific goal to be fulfilled after its implementation; defined schedule and dates of performance;

The set framework for drawing finance and the regime of refinancing the subject of the project itself (construction of the work, implementation or installation of technology, investment procedures, etc.).

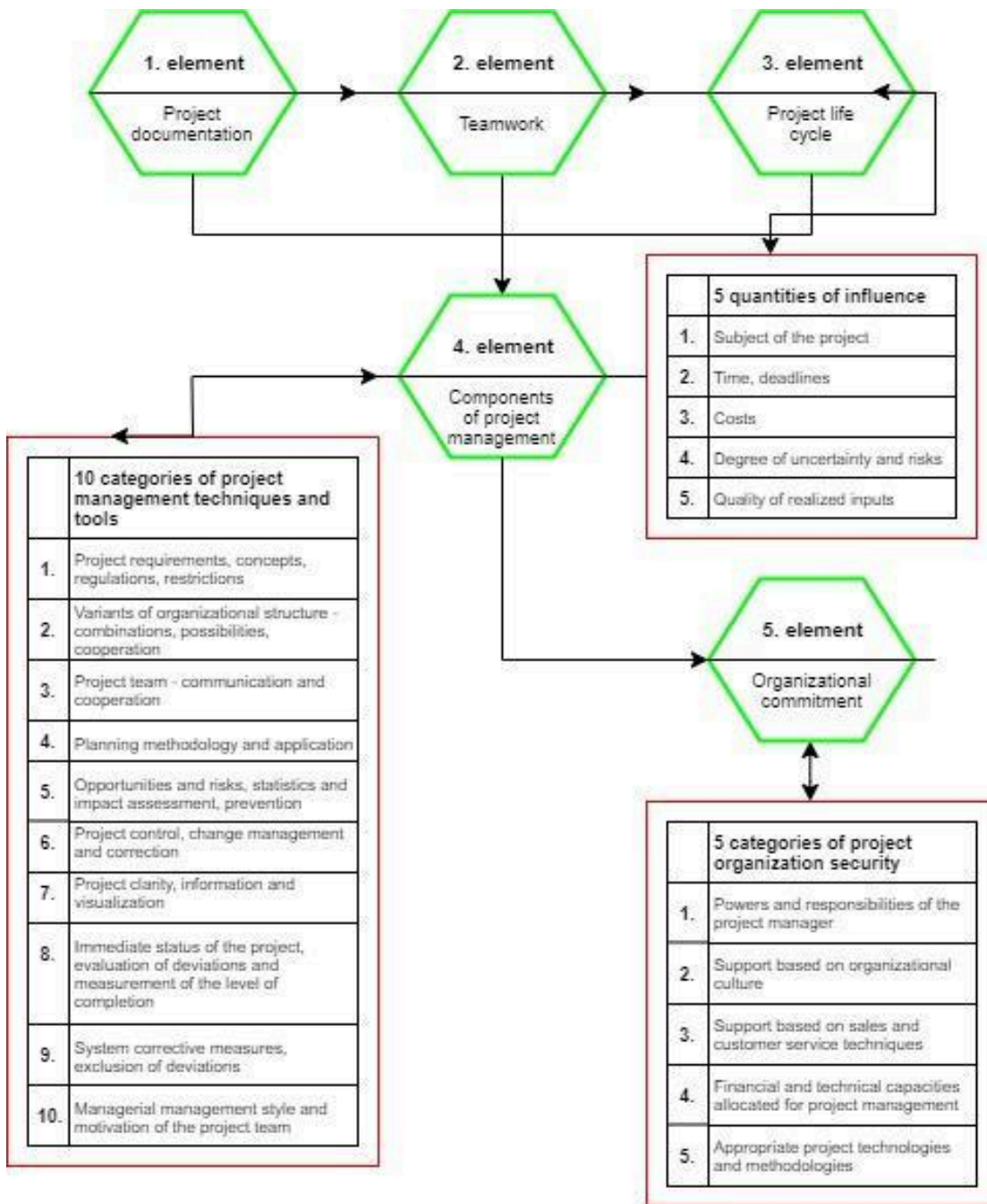


Figure 4: Basic elements of project management SME and clusters generally [13, authors]
 Source: <https://euractiv.sk/tag/unia-komunitnej-energetiky/> + Own creation of NEK 2021

- **What were your goals and expectations when joining the energy community?**

300–1000 words

We believe that for the relevance of all our answers, it will be best to build on the previous one, already the second presented and specific case study of 1.es in Prešov.

If, according to the results of our expert Elizabeth Gavalcová, we summarize the motivations from the people from the questionnaire with the statements of the main actors according to the interviews performed, then two motivations: cheaper energy and environmental protection dominated this particular energy community.

It seems that for further development of community energy in the conditions of the Slovak Republic it will be necessary to emphasize these aspects in communication with the population. However, the findings of this work are clearly confirmed by the previous survey from SIEA, from which the same dominant motivations have emerged. Furthermore, we can say that in the affected apartment buildings, the support of the concept of the energy community itself prevails (in the specific case and in the sense of Slovak legislation in the form of an energy community). The same applies to the statement of support on increasing RES in the energy mix. An interesting finding, however, was that there is a significant lack of social aspect in comparison with motivations for community energy abroad, such as interest in strengthening relationships. The results of the work on this issue show that the inhabitants are more willing to participate in changes if other inhabitants in the community are involved and not only their personal beliefs decide. The conclusions of the author that therefore it will be possible that if there is no will to build social relations, this fact will not play a role and it will be more difficult to convince people in our opinion.

This work was found and perceived by the inhabitants perceived barriers are similar in the results of foreign literature (egg Brummer, 2018). Barriers are diverse, there is no one, which results in legislative reasons and concerns about the lack of funding. However, since no inhabitants said that he would feel well oriented in the issue and only 23.5% of respondents labelled that they had enough information about the concept. These concerns could stem from what was communicated by the owners of the apartment owners or the founder of the community project, but they were different. This can also explain the relatively most commonly marked concern for technical problems, which was mentioned by all representatives of the apartment owners. Trust against the "leader" person may have a great impact on these answers.

An interesting result of the work was that respondents who had noticed that they had not heard of the concept before (20.6%), however, would "certainly" or "earlier" support the emergence of such a community in their place of residence (and also support increasing RES in energy) . This confirms the so -called. "Value-Belief-Norm" theory that claims that people will support the new RES technology, even if they do not know it completely if they have environmental values.

Furthermore, they also referred to the questionnaire that they were motivated by environmental and financial reasons. However, this finding may also mean a possible complication for possible community problems. Indeed, these respondents called the most common answer that this concept will only be talked about, but there will be no result, which could affect their will and the necessary participation in specific actions. However, this finding is also a logical question that how is it not possible that they have not heard of the concept of energy communities if they are to be found in such? The communication strategy within the Community is so fundamental that it should be remembered that if people do not receive enough quality information about the concept, then there will be no confidence in the community energy. Increasing the acceptance of community energy is one of the key directions of the future of energy, which is also mentioned by Red III.

Furthermore, it turned out that those residents who knew about the concept, but despite its support, were not interested in participating in it, they were more in the higher age categories. It follows from the results that high support of the project's idea does not automatically mean interest in active participation for its start-up or functioning. This is also confirmed by the phenomenon, described in the literature as the so-called "Value - Action Gap", which indicates the difference in what one declares and what he would really do. In the questionnaire, people also expressed their concerns that would discourage them from adding to the project, especially the lack of time and information. This phenomenon also explains the behavioural economy and therefore that people prefer immediate solutions. Equally relevant theory may be the theory of planned behaviour, when perception of deficiencies negatively affects attitude to innovation.

A relatively surprising finding at the end of the work was also a lack of awareness of this project by the city. The interviews also showed that the cities could become potential key carriers of community energy and that there are not only technical barriers (as the absence of intelligent household measuring systems, which was also mentioned in the literature as one of the important prerequisites of development), but also perceived insufficient incursions of communities, for example through market benefits.

Unfulfilled potential

The legislation of energy communities and communities producing energy from RES is still relatively framework. Several fundamental things are left on the Decree of the ÚRSO, which should enter into force in the coming months.

Electricity sharing itself is currently not feasible in Slovakia. A prerequisite for proper electricity sharing within the energy community, a community producing energy from RES or active customers is, in particular, a functional electronic system displaying individual data, ie the Energy Data Centre (EDC).

The launch of the energy data centre is currently scheduled for two phases. According to the EDC operator, which is to be OKTE, a.s., the first phase is expected to be launched at the end of June

this year and in early July, basic functionality should be operated to allow new market participants to participate in electricity sharing and providing flexibility.

The development of community energy should also be helped by the Ministry of Economy of the Slovak Republic, which extends its scope to create a support framework to promote and facilitate development.

Over time, there should also be a contact point for guidance of the administrative procedure regarding the establishment, operation and development of energy communities and communities producing energy from RES, whose tasks will be performed by the Slovak Innovation and Energy Agency.

Energy communities and communities producing Energy from RES are currently a hot topic that hides great potential. Therefore, in the coming years we can expect the boom of community energy, which should contribute to increasing energy efficiency and self-sufficiency.

Given that the adjustment of energy communities and communities producing energy from RES defines only the basic conditions of their origin and functioning, it is expected that other mechanisms and processes can be created by practice.

NEK as one of the leaders of Slovak cluster policy and the oldest Slovak EC is built on the main principle of activity:

1. Ensure EC consumers informing about changes in relationship with the supplier and disconnection options

One of the less discussed aspects of energy communities is the different relationship of the supplier of energy and consumer, compared to the traditional supplier-consumer relationship. On the one hand, the members of the Energy Community retain their supplier-customer relationship, which guarantees them the right to a change in the supplier under the Electricity Directive. On the other hand, the members of the Energy Community also enter into the relationship "member/investor", which regulates the legislation on companies. The initial investment required of a member may discourage the change of the supplier, and its return can be limited to protect the long-term operation of the energy community itself. As with the return of investment from the company, in some cases energy communities can introduce minimum deadlines for returning the investment, which makes the change of the supplier difficult.

Although this may restrict consumers' rights, it is understandable that such protection may be needed to ensure the economic sustainability of the Community. However, energy communities should explain this situation in their contracts and to draw attention to it as part of pre-contractual information, as well as on their website.

The right to change the supplier is also associated with the concern of technical disconnection. The Council of the European Energy Regulatory authorities (CEER) has highlighted examples of energy communities, which are also distributors and energy suppliers (eg heating networks or

community -management communities). If these energy communities decide to exclude a member for failure to fulfill obligations, this also means disconnection of the consumer from the energy network.

2. To ensure quality customer service

As mentioned above, energy communities are often managed by volunteers, and many problems are often solved internally and democratically. However, with the increase in the number of energy communities, the question arises as to what level of service members of such energy communities can reasonably expect.

In Belgium, the energy community of its members informed by e-mail that it was decided to terminate the energy supply. Of course, after the investment of EUR 1,000 in the Community, its members were concerned when they learned when they could recover this money. This information had to be demanded, eventually received by e-mail, and more than six weeks.

The quality of customer service services also concerns a number of complaints for traditional energy suppliers. However, electricity is the basic service, so energy communities, like responsible energy suppliers, should ensure a satisfactory minimum standard of these services.

- **Best practice: an example of a well-governed and a well-operated energy community in the country**

300–1000 words. Additionally, attach a diagram or an image.

Current development and perspectives of energy communities and communities

The Energy Act did not impose an obligation on the Ministry of Economy of the Slovak Republic or the Office for Regulation of Network Industries to draw up a special decree in connection with the energy companies' resp. Communities producing energy from RES. § 14 par. 10 of Act no. 309/2009 Coll. However, on the support of renewable energy sources, in the version effective from 1.12.2022, it contains within the definition of competence (or role) of the Ministry of Economy of the Slovak Republic to create a "support framework to promote and facilitate the development of communities producing energy from renewable sources" through which it ensures, to:

(a) the unjustified legal or administrative obstacles to communities producing energy from renewable sources were removed,

b) The competent distribution system operator has cooperated with communities producing energy from renewable sources in order to facilitate the transfer of energy within communities producing energy from renewable sources,

c) Communities producing energy from renewable sources were subject to non-discriminatory, reasonable and transparent procedures, including the procedures of registration and granting permits, network fees corresponding to costs and fees, levies and taxes to ensure that appropriate, fair and balanced manner contribute to joint laying the total cost.

Therefore, this currently implies some embarrassment of proceedings and uncertainty in the next legislative procedure in the introduction and development of energy communities and communities in Slovakia.

The authorial design of the innovative project management and coordination process for the needs of the functioning EC - a cluster organization NEK is specifically seen in this context and system elements (Figure 5).

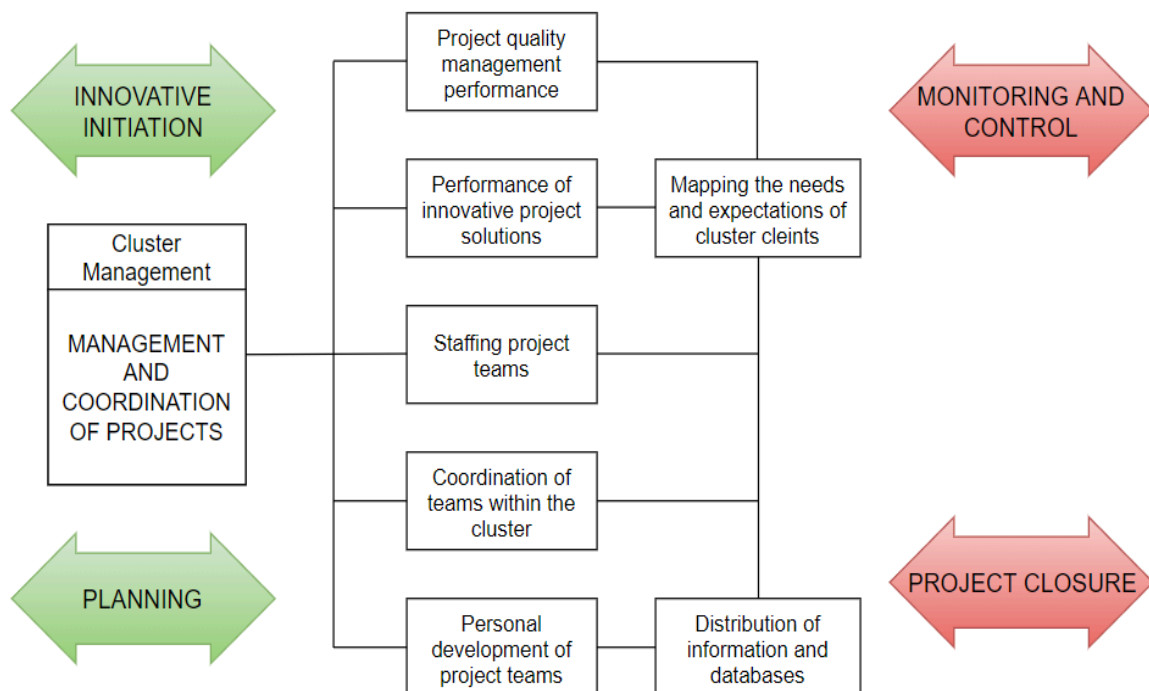


Figure 5: Design of projects management process and coordination in industrial SMEs and clusters

Source: Own creation of NEK 2021

This proposal sufficiently responsibly, unambiguously and exhaustively describes the load-bearing elements and links between them in the conditions of two-stage projects and engineering activities in SMEs and their grouping clusters for customers and is the own application of authors with modified solutions. At the same time, it is highly highlighting the fact that the result of the activity of project procedural management as a connection of invention and forces is and will always be a commitment to a cluster organization for research, technical development, production and innovation for industrial investment and commercial use by its member companies.

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