

NRGCOM Policy Recommendation

*Policy recommendation intended to improve
and/or initiate the restructuring of the legal
environment for better conditions to create RECs*

**Strengthening energy communities: finalizing policy
recommendations to remove barriers affecting the emergence
and/or spread of dissemination energy communities after 2024**

2nd period

D - A.T.1.5. deliverable description

PP12 – National Energy Cluster NEK, Slovak republic

December 2024

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1. Introduction - description of tasks within the activity A.T.1.5 – 2th period

In Slovakia, the European Union package of measures is being implemented, designated as the "Clean Energy for all Europeans Package", with the aim of prioritizing energy efficiency, achieving global leadership in the field of renewable energy, and also ensuring fair conditions for consumers. Since the end of the first period of project implementation, only the development principles have been applied in Slovakia, valid from 2022 and are gradually incorporated into Slovak legislation.

Based on the experience gained from the 1st period of the NRGCOM project, it is a good practice and at the same time a task for the partners, under the coordination of STRIA, to review the current state of play and finalize policy recommendations based on thorough research, the results of the comparative analysis study (A.2.3) and the awareness raising of stakeholders through professional training (A.2.4), as well as ongoing results from other project activities.

The knowledge gained and best practices, advice and tips, as well as the motivational methodology are concisely summarized in this study document for Slovakia, prepared by PP12-NEK, which will also be gradually shared with local, regional and national stakeholders, ambassadors, experts and stakeholders of PP12 – NEK and the materials are published online and promoted on the official website of PP12 NEK, namely: www.nek.sk, thus ensuring portability and information about the findings of the national workshops.

The recommendations will be the subject of transnational roundtables in SO1 according to A.T.1.5, so that the PPs can then be shared with the relevant political authorities.

Statement: there have been no significant changes since the implementation and course of the first period of the project, and the level of performance in the energy community environment to date is constant.

2. National legislative background

In the legislative environment of the Slovak Republic, the basic definition of an energy community and a community producing energy from renewable sources through the provisions of Section 11a of the Energy Act, which regulates both the energy community and the community producing energy from renewable sources, is based on European Union law - specifically Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 concerning common rules for the internal market in electricity and amending Directive 2012/27/EU and, in the case of the Community, Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources.

The primary purpose of these new entities on the energy market is the organization of community activities in the field of energy, through a legal entity established by specific persons, with democratic principles of management and for a non-commercial purpose and on a non-discriminatory basis in relation to other market participants.

The inspection is carried out and the fulfillment of the above conditions is evaluated by the Regulatory Authority for Network Industries (ÚRSO), which issues a certificate upon proposal. This certificate, issued to legal entities, is registered on the ÚRSO website and serves to prove itself in legal relations with other participants in the electricity or gas market.

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3. Organizational structures and membership

Following our outputs within the framework of activity AT.1.5 in SO1 within the 1st period, it is necessary to repeatedly emphasize that the legislative options are relatively free and for the appropriate application of community energy in Slovakia, several legal forms come into consideration. We have already described their characteristics in detail in the above section and we consider all of them to be appropriate. For the sake of completeness and repetition, they are the following:

- Civic associations (CSOs),
- Cooperatives,
- Non-profit organizations,
- Interest associations of legal entities.

It is an important principle that organizational charts and management structures for all of the above forms are a matter of individual decision of the founding members, while the basic rules are captured in the written documents of the given form of the established energy community, or community producing energy from RES.

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4. Identified bottlenecks and areas of intervention

The goal for this task within the activity A.T.1.5 was already in the 1st period that the participants of the NRGCOM project, within the framework of their joint activities, correctly identified the most pressing problems of the energy communities in the Danube region, so that for the necessary intervention of the national authorities they could create real instructions for removing the most obstructive bottlenecks.

This process continued and was deepened in joint meetings within the framework of the national activities PP12 – NEK, with the result for the 2nd period:

4.1 Legislation

The Slovak partner P12 NEK within the NRGCOM project within this activity A.T.1.5 in the SO2 period refers to its previous extensive outputs in parts A.T. 1.1 to 1.3 and A.T.1.5, in more detail when fulfilling the task A.T.1.1 in point 2. National legislative background, where it described the Slovak legislative definition of the energy community and the community producing energy from renewable sources, which is the result of the transposition of European Union law - Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 concerning common rules for the internal market in electricity and amending Directive 2012/27/EU and, in the case of the Community, Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources. The essence of the principles within the framework of legislative changes were transferred in Slovakia to the newly created provisions of Section 11a of the Energy Act, which regulates both the energy community and the community producing energy from renewable sources.

4.2 Business model development

The fundamental advantage of the energy community and community in practice in Slovakia continues to be that active consumers are no longer dependent only on consuming electricity themselves, or storing it in their own storage facilities or selling it to the grid. This is ensured by sharing, which is linked to broader possibilities in the field of community energy, in which sharing surpluses between members will be a common practice. This applies, for example, to neighbors, or even sharing to local production plants, and the operating model of the energy community or community will depend only on the mutual agreement of the members to address their needs.

A significant advantage of Slovak legislation, according to the findings and research on this activity by PP12-NEK, is that for an energy community or community producing energy from RES, activities such as electricity generation in a facility with an installed capacity of up to 1 MW, or electricity storage in an electricity storage facility with an installed capacity of up to 1 MW, aggregation or supply of electricity and production or supply of biomethane for its members are not considered business in the energy sector and a "simple" notification to the Slovak National Regulatory Authority is sufficient for their implementation.

Although relatively broad forms are possible from a legislative perspective, from an organizational perspective, ECs and ESs in the Slovak Republic are, according to the current Slovak legislation and the findings of PP12-NEK, most advantageously conceived only as interest associations of legal entities, so that they can operate according to the following organizational chart published in the report on activity A.T.1.5 in the 1st period of the project.

4.3 Challenges of stakeholder management

As we have repeatedly emphasized, PP12-NEK is systematically building a network of organizations with multiple managements of the energy community or communities producing energy from RES in Slovakia: "NPEECA - the National Platform of Energy and Environmental Clusters and Associations of Slovakia"

At the same time, it assumes that in this period of the 2nd period and of course in the future within the framework of the sustainability of the NEGCOM project, in the conditions of constantly and often unexpectedly implemented legislative changes in the European Union and Slovakia, that all those negative measures will not be enacted and adopted in Slovakia (and it can be said that according to the initial

reactions of the affected energy market participants in relation to the European principles of the use of RES), significantly damaging the original regulatory proposals of the ÚRSO. However, at present, the given situation is stable and functional.

4.4 Difficulties in internal governance

As a negative example of difficulties with internal management and conflict resolution, we can repeatedly mention the still valid and determined legislative fee of the ÚRSO for the so-called G - component. The consequences of introducing an unjustified fee increase by any analysis will ultimately be felt not only by green resources, but also by the economy and employment, as many representatives of renewable electricity producers claim.

Another persistent problem is the lack of appropriate supporting technical and financial tools and software support for energy community management in practice. Managers and organizers of the energy community environment thus use only the knowledge and experience from their own previous management activities in the SME environment and in the implementation of energy systems based on RES.

Statement: Since the implementation and course of the 1st period of the project, there have been significant and pleasing changes and the level of previous achievements in the energy community environment has continuously stabilized and, based on joint meetings and numerous presentations and conferences in Slovakia, there is a visible shift in the topic and, above all, a great interest of management and potential interested parties in the topic of energy community.

5. Possibilities for integrating different operating models

As we have already stated in our report on the 1st Period of the project in activity A.T.1.5, taking into account the experience of P12 NEK, the operation of community energy while complying with legislative requirements and restrictions in the conditions of the Slovak Republic is possible according to several models, which are mainly determined by the selection and choice of possible ways of doing business.

In the conditions of the Slovak Republic, the typical representatives of the appropriate operation of the community of community energy are still to the most significant extent industrial clusters - especially regional energy and environmental clusters. In this phase of the 2nd period of the NRGCOM project, activity A..T.1.5 of the NRGCOM project, it is necessary to bear in mind that PP12 NEK for cooperation and creation of a common professional background and a common information, advisory, organizational and legislative base, for the development of energy, ecology, related technical and industrial development and innovations in Slovakia have established and, together with eight other partners, operate and disseminate the platform - the NPEECA organization as an effective form of mutual cooperation and communication in the design, solution and implementation of joint projects and programs as well as the presentation of results and efforts in the professional public and in contact with state administration bodies, local governments and the business sector with a special focus on the field of activity in energy and industrial ecology.

This is a concrete example of good practice.

Statement: since the implementation and course of the 1st period of the project, there have been no significant changes and the level of performance in the energy community environment to date is constant.

6. Potential incentives

Energy communities and communities producing energy from RES have great potential. In the coming years, community energy can be expected to expand, which, after clarifying the situation and eliminating several, already described above and exclusively domestic legislative threats, should contribute to increasing energy efficiency and self-sufficiency.

Given that the regulation of energy communities and communities producing energy from RES defines only the basic conditions for their establishment and functioning, it can be expected that other mechanisms and processes will soon be created after the application practice has stabilized.

The development of community energy in Slovakia should also be assisted by the Ministry of Economy of the Slovak Republic, which is expanding its powers to create a support framework for promoting and facilitating development. Within this department, a contact point is being created to guide the administrative procedure regarding the establishment, operation and development of energy communities and communities producing energy from renewable sources, whose tasks will be fulfilled by the Slovak Innovation and Energy Agency (SIEA).

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7. Further proposed solutions

Within the Danube Region NRGCOM project, it is logically impossible to solve all the limitations and obstacles of the given issue, as this is a dynamically developing area.

To guide the direction on the common path, we recall the initiative graphic design of the author's collective from the P12 NEK membership base, already published as part of the evaluation of this activity A.T.1.5 in the 1st period of the project.

7.1 Synergy of energy and environmental aspects of RES of industrial enterprises and their innovation potential

We remind you that the finalization of this issue under the leadership of LP1 STRIA, within the framework of the joint design of the PP model, will probably form one of the main pillars in the creation of the final documents of the entire NRGCOM project.

Given the mission and nature of the main activity, it is important to understand the functioning of the energy community as an "industrial enterprise in the field of energy", the main goal of which is the production of goods or services with the highest possible economic effect (i.e. the lowest possible production and service costs with the highest possible sales in a given time and area of operation). The need to take into account energy and environmental aspects is, although in production it is actually an undesirable fact and limitation, but paradoxically at the same time an indispensable need for the growth of innovation potential and the success of sales on the market - the effect of synergy and mutual interdependence without the possibility of neglecting any of these aspects for the survival of the enterprise. This is happening in an ever-changing and competitive environment and at the same time provides industrial enterprises with the search and implementation of new innovations to ensure this synergy.

We must respect that the ever-increasing new professional requirements for industrial production and growing expectations mean that enterprises must consider changing the conventional way of thinking and switching to more effective management methods. However, if the necessity of change is not determined in time or at all, it is impossible to determine the goal and method of implementing the change.

According to these principles, one of the most effective changes seems to be fundamentally the course of management of enterprise production, management, distribution and operational processes. The transition to new management methods is also enabled by new innovative approaches and new information technologies that are part of the design and management information system of enterprises. [21, 23] However, the essence of the investigation is the knowledge of a large set of suitable diagnostic methods and audits that have sufficient informative value for an industrial enterprise and combine innovative factors and attributes with the application of a modern approach to the energy and environmental aspects of enterprise management. [4, 6].

To understand the basic connections of this synergy, the authors of PP12-NEK within this activity A.T.1.5 created their own working model in the following figure (it was already published within the 1st period of the project), which is and will continue to be the subject of further research in the field of modern energy sources and organizations for industry.

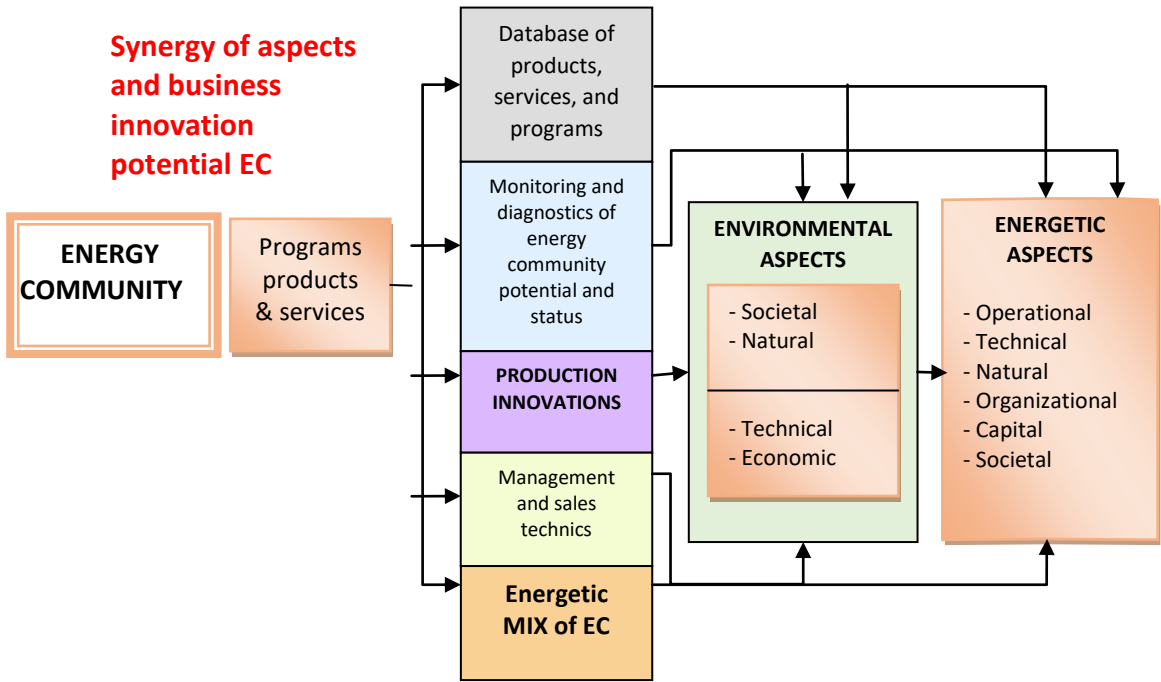


Figure: Source (author's work PP12-NEK)

It is true, as was already stated in more detail in the solution section in the 1st period, that the presented model specifies the energy community as an industrial enterprise and as a set of processes primarily dedicated to production, the provision

of industrial services and related service activities, which are divided into five components (according to the following table):

Table: Source (author's work PP12-NEK)

Energy Community Model Component	Energy Community Model Component Contents
Database of products, services and programs	Talking about what the energy community produces and what services it provides, what its technological background and material and technical support are, with scope for other entities on the market
Monitoring and diagnostics of the potential and state of the energy community	Which aspects present the current state and level of innovation of the enterprise as such
Innovation of production	Which is a key component of the energy community, dedicated to management, linked to its own innovative potential and position due to its special abilities, creativity and support of competitiveness towards other enterprises, consumers and partners on the relevant market
Management and sales techniques	Consisting of the energy community's ability to manage, control and create new products and apply new sales techniques and methods that highlight the energy and ecological impact and use of products on the market and in particular their emergence in the production process, as well as applying appropriate public relations, advertising and promotion tools to enhance the value of its products on the market and in a given social environment
Energy mix of the energy community	Representing the current state of energy sources that are used during the production process and operation and defining the current and future state of specifically usable RES and their ratio to the so-called conventional sources of renewable energy, provided internally or within the framework of energy supplies by central distribution networks

The model shows how these components are existentially interconnected and impact on environmental aspects – divided into so-called general items such as social and

natural aspects (which the company cannot directly influence and is forced to accept) and also so-called professional items such as technical and economic aspects (which the energy community can significantly influence through its own production). At the same time, it is a connection with energy aspects that are directly within the competence of the company's selection and application in production, namely operational, technical, natural, organizational, investment and social components. On the one hand, the above scheme shows the impact of the company on energy and environmental aspects in relation to management and innovation, but also the feedback relationship of aspects to the operation of the company and its position on the market.

7.2 Final recommendations of PP12 – NEK within the framework of activity A.T.1.5 to strengthen energy communities and related policies in the conditions of the Slovak Republic

After monitoring and re-evaluating the implementation of activity A.T.1.5 within the 1st period and 2nd period of the NRGCOM project, the essential recommendations for transnational round tables can be summarized as follows:

1. Continuously responsibly monitor changes and activities in the legislative regulations of the EU and Slovakia and flexibly respond with open professional publicity in the media and communication with competent state and local government bodies in regions and municipalities.
2. Gradually build a professionally capable team of experts and stakeholders across Slovakia with representation in SMEs and enterprises with RES-based production.
3. Create and gradually build at least three domestic and functional energy communities, meeting at least the basic operational and technical criteria on the energy market.
4. Work within the NRGCOM project, but also beyond its framework and in the future, on good and easily applicable SW and HW tools to support the management and production of energy itself and its distribution within energy communities.

In conclusion, the authors of the PP12-NEK collective for Slovakia repeatedly express their own professional opinion on this issue within the framework of the implementation of activity A.T.1.5, namely:

Energy and environmental aspects in the conditions of energy communities generally create impacts not only on their character and production capacities and the related current innovation potential, but also provide an impetus for their own innovative creativity within these communities for changes and improvements in their energy mix and approach to management.

This is the greatest benefit and potential for the development of the entire energy sector based on RES in the future in the European area.

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Project completion date: 01/2024-06/2026 Project 2st period completion date: 07/2024-12/2024

Kontakt/Contact: www.nek.sk, info@nek.sk, projekty.nek@gmail.com, tel.: +421 910 961 141
