



T3 FOSTERING THE CO-CREATION OF LOCAL ENERGY COOPERATIVES AND THE IMPLEMENTATION OF CITIZEN-BASED PILOT ACTIONS

A.T3.11 IMPLEMENTATION OF PILOT ACTIONS IN LUBELSKIE VOIVODESHIP

D.T3.11.2 - Report on the pilot project implementation in the Lubelskie Voivodeship

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1. Introduction

The Report on the pilot project implementation in the Lubelskie Voivodeship, in the Niemce Commune is developed for providing the main lessons learned from the implementation of the pilot action, establishing the energy-saving community in form of the energy cluster with the use of participative tools for citizen engagement.

The document presents the pilot action of ecological education for the local community in the Niemce Commune in the Lubelskie Voivodeship entitled “Every resident and entrepreneur from the Niemce Commune can contribute to clean air in the commune.”

Through the first chapter of the document, the implemented pilot action was specified by means of its experimental nature and demonstration character, expected impact and benefits of its implementation for the concerned territory and target groups and leverage of additional funds if applicable, sustainability of the pilot action results and transferability to other territories and stakeholders. After specifying the pilot action in the Niemce Commune, the lessons learned and the added value of the action to transnational cooperation were elaborated as well as its contribution to relevant regulatory requirements, sustainable development) and horizontal principles.

In order to prove the realization of the implemented pilot action, additional documentation including the Letter of intent was undersigned by the “Niemce Energy Cluster” members. Description and plan of the pilot action, programs presentations, scans of attendance sheets and fulfilled questionnaires, photos and web links were also provided.

The second part of the document deals with the issue of establishing the energy-saving community in the Niemce Commune and clarifies the legal status and other relevant data of the newly established the Niemce Energy Cluster.

In connection to that, the main lessons concerning the establishment of the energy-saving community: “Niemce Energy Cluster” were outlined as the contribution of using the tool D.T2.2.1 Co-design workshop methods for engaging participants in local energy planning in engaging the citizens to join the said citizen energy group. In order to ensure the sustainability of the established “Niemce Energy Cluster” in the targeted region and its operation outside of the project duration, it is important to invite new members and start implementing community energy projects. The relevance of using the tool D.T2.2.3 Communication methods for local energy plans and creating an atmosphere which will help public officers reach out to their community and engage the citizens in future energy planning was also elaborated.

The issue of sustainability of the cluster is also regulated in the agreement: in § 8 Final Provisions, 1. This Agreement is concluded for an indefinite period of time. Provided that the created Cluster will be durable under the ENES-CE project until 2025 (in accordance with section 5 sec. 2 of the Agreement of October 18, 2018, concluded between the Lubelskie Voivodeship and the Niemce Commune).

All the lessons learned while implementing the pilot action, establishing the Niemce Energy Cluster and using participative tools for citizen engagement during the mentioned activities in the Niemce Commune are compiled with main lessons learned in other project partner regions in one common document D.T3.14.3 Lessons from developing citizen energy in Central and Eastern Europe.



2. The implemented pilot action in the Niemce Commune in the Lubelskie Voivodeship

2.1. Specification of the implemented pilot action

Table 1 - General information on implemented pilot project action

Project deliverable and title of the pilot action	<p>D.T.3.11.1 PA5 - PL: Implementing the defined pilot actions in the Niemce Commune.</p> <p>The pilot action of ecological education for the local community entitled “Every resident and entrepreneur from the Niemce Commune can contribute to clean air in the commune.”</p>
The main goal of the pilot action	<p>The aim of the pilot action was:</p> <ul style="list-style-type: none"> - to sensitive all target groups to ecological issues, to raise awareness of the possibility of reducing low emissions in the commune and the possibility of choosing air quality notification systems in the future; - promoting the idea of cooperation within the Energy Cluster and the possibility for potential new members to join the cluster and join the common bottom-up energy planning in the Niemce Commune. <p>In addition, the action was conducted to promote understanding of the need to take joint action to reduce air pollutant emissions and improve the energy efficiency of the communal and residential buildings in the commune by investing also in installations using renewable energy sources.</p>
Start and end date of the pilot action	<p>The duration of the pilot action was set from 01.11.2021 to 15.12.2021.</p>
Technical information on the implemented pilot action (break down of investment costs)	<p>The organizational costs of the pilot action of ecological education for the local community “Every resident and entrepreneur from the Niemce Commune can contribute to clean air in the Commune,” included providing a meeting place, the equipment for the participation of the commune employees, refreshments etc. for conducting the meetings were covered from own resources of the members of the Niemce Energy Cluster. The cost of participation of an external expert was covered by the ENES-CE project budget. Due to the specificity of the costs, which results due to the current activities of the Niemce Commune and other members of the Niemce Energy Cluster and the complexity of the services of the external expert engaged in the ENES-CE project it is not possible to estimate them precisely.</p>



Please describe the implemented pilot action in the Niemce Commune in accordance with the following aspects:

Experimental nature and demonstration character of the pilot action:

The experimental nature of the pilot action consisted in the fact that for the first time in the commune, the newly created energy-saving community "Niemce Energy Cluster", whose members are local authorities, private entities and natural persons, jointly organized and conducted meetings with residents and entrepreneurs for ecological education. A new group of residents was informed, educated and could be involved in dialogue with the cluster energy members about the investments in RES, in dialogue with the support of an expert in energy planning, who encouraged them to activities for saving energy and to joint or individually investments in RES installations, in the improvement of the energy efficiency of buildings in order to improve air quality in the commune. Implemented project action has a pilot-model character and creates better conditions for understanding the need to take joint action to reduce air pollutant emissions and improve the energy efficiency of the communal and residential buildings in the commune by investing also in installations using renewable energy sources.

Expected socio-economic impacts¹ and benefits of its implementation for the concerned territory and target groups and leverage of additional funds if applicable:

In order to evaluate the pilot action, monitor the messages and obtained knowledge and information by stakeholders during the meetings, as well as assess the satisfaction of participants with the quality and form of information provided, at the end of each information and education meeting, an evaluation questionnaire was carried out.

The total number of participants in the pilot action was 68 persons. 36 people responded to the questionnaire out of a total of 68 people attending the 3 meetings, which is 53% of all participants in the pilot action meetings. The survey was anonymous and at the same time, to characterize the respondents, they were asked about: gender, age, and education sector. 19 women and 17 men responded to the survey. The respondents there were farmers, entrepreneurs and residents aged 21 to 75, with primary to higher education.

91% of the respondents/participants in the pilot action increased their knowledge about the possibilities of reducing low emissions in the commune. During the meetings, the inhabitants and other stakeholders were informed about the possibility of choosing the air quality notification systems in the future. **Most of the respondents (81%) supported the idea of the Energy Cluster disseminating the information about air pollution in the Niemce Commune through the installation of boards or sensors to measure air pollution. The respondents also suggested locations to install the devices. Moreover, 44 % of the respondents declared their willingness to join the Niemce Energy Cluster, in order to jointly plan a sustainable energy development of the commune and to implement investments in RES.** On the other hand, 69% of the respondents stated that the implementation of the ENES-CE project, the creation of the Energy Cluster and meetings with inhabitants/stakeholders are beneficial for the inhabitants of the Niemce Commune, because they involve them in common activities for the reduction of air pollution emissions (including CO₂), as well as energy planning in the commune with the use of RES.

Participants in the pilot action also gained knowledge about what is low emissions and what causes low emissions (97% of respondents) and what are the sources of energy and heat which do not cause low emissions (89% of respondents). In addition, 91% of

¹ Such as new knowledge and improved skills, stronger community engagement, integration of socially excluded, target groups, etc.



respondents gained knowledge about programmes which can be used to obtain funds for investments with the use of RES and for improving the energy efficiency of buildings. Niemce Energy Cluster, as part of the pilot action, educated and aimed to inspire public confidence in another group of inhabitants and stakeholders, encourage them to cooperate in the preparation of projects and obtain funding for the implementation of investment activities included in the updated Low-Carbon Economy Plan for the Niemce Commune (Municipality). The Niemce Energy Cluster is waiting for the announcement of the call for proposals and will consider preparing and applying for a subsidy from the Funds for Lubelskie 2021-2027 program addressed to local energy groups, such as energy clusters.

Building the trust and confidence in the success of the created visions and plans which in the initial lack of knowledge of residents seems to be unrealistic, but can change with the education and explanation of doubts and questions.

It has been and will continue to be a major challenge for local authorities and leaders and Niemce Energy Cluster members.

At the same time, by showing the first effects of joint work and education of the residents, it is possible to inspire public confidence in a wider group of inhabitants and stakeholders and encourage them to cooperate in the preparation of projects and obtaining financial support for the implementation of investment measures included in the updated Low-Carbon Economy Plan for the Niemce Commune.

Sustainability of the pilot action results in the future after the project end and transferability to other territories and stakeholders:

After carrying out the pilot action, it is recommended to organize similar future information and education actions by Niemce Energy Cluster and the Niemce Commune, who has the role of coordinator. Niemce Energy Cluster can use the available plan prepared by an external expert within the ENES-CE project: "Plan of consultation and advisory system regarding possible RES and EE investments in the Niemce Commune with the Communal Engineer or an external expert". This plan defines the consultation system, which can include:

1. Annual meetings for more stakeholders,
2. Monthly meetings as part of stakeholder meetings individually.

The experiences gathered while establishing the "Niemce Energy Cluster" and implementing the pilot action in the ENES-CE can be promoted on the regional level to other communes in the Lubelskie Voivodeship as examples of good practice for involving inhabitants in the bottom-up process of energy planning (investments in RES and EE) in the commune and creating local energy-saving communities.

Please shortly describe if your pilot action has had any relevant impact on the attitude of stakeholders towards similar projects in your region. Existence of increased interest or dialogue, changes in relations while implementing the pilot action:

Through the implementation of the pilot action of ecological education of the local community, showing the first achieved results of joint energy planning (which in the case of the Niemce Commune is the creation of Niemce Energy Cluster with a vision of investment activities in the commune included in the updated LCEP), the Niemce Energy Cluster highlighted the measurable effects of engagement of residents and other stakeholders from the Niemce commune in the dialogue and cooperation in the bottom-up energy planning in the commune.

The idea of the pilot action was the outcome of the arrangements made during the workshop meetings within the ENES-CE project. The meetings were attended by the citizens involved in the process of the update of the Low-Carbon Economy Plan for the Niemce Commune and the creation of the citizen energy group in the Niemce Commune.



The idea of ecological education of the local community was included in the updated LCEP for the Niemce Commune, adopted in 2020: point. 4.2 Non-investment activities: "environmental education of the local community, through information and promotion actions, air quality notification systems, raising awareness on the possibilities of reducing low emissions and others".

The activity related to ecological education action among the local community has been included in the LCEP update for the Niemce Commune for the period 2021-2030, with a vision of activities until 2050 (update), as activity No. 3 planned until 2030: "Conducting an educational and information campaign to raise awareness about EE - energy efficiency and related financing opportunities for investment activities". Additionally, it states that the pilot under the ENES-CE project, i.e., an environmental education action for the community, will be carried out to raise awareness of the possibilities of reducing low emissions and about the air quality notification systems.

The local authorities were interested in the idea of the workshop participants, hearing participants voices and opinions. It was then easier to make the decision on the implementation of the pilot action.

The implemented pilot action can have a relevant impact on the attitude of stakeholders towards similar projects in the Lubelskie region in the future.

The direct positive effects of the pilot action in the Lubelskie region are that the gathered by the Niemce Energy Cluster experiences and results of the ecological education the pilot action can be promoted in other communes in the Lubelskie Voivodeship as examples of good practices of ecological education, involving inhabitants in the bottom-up process of energy planning and energy saving in the future in the Commune and promotion of creating local energy-saving communities, citizens energy groups, energy clusters. This experience and knowledge from the pilot action can also be used in transferring the experience to other communes in the region for example during the Energetics Trade in Lublin or other meetings in Poland or the EU.

For the first time in the commune, the newly created energy-saving community "Niemce Energy Cluster", whose members are local authorities, private entities and natural persons, jointly organized and conducted meetings with residents and entrepreneurs for ecological education.

In this way, a new group of residents was informed, educated and could be involved in dialogue with the cluster energy members about the investments in RES, in dialogue with the support of an expert in energy planning, who encouraged them to activities for saving energy and to joint or individually investments in RES installations, in the improvement of the energy efficiency of buildings in order to improve air quality in the commune.

While implementing the pilot action, the following increased interest, dialogue, and changes in relations were noted:

- local authorities gave more space and voice during the meetings to the other cluster members, local entrepreneurs, and residents, who were even more active compared to the pilot action planning,
- the cluster members were open to changes and willingly complemented each other, all of them had the same goal and were able, in the name of achieving this goal, to commit themselves strongly and adapt to jointly agreed activities as well as to conditions that change from time to time, which were difficult to predict in the planning phase,
- the local authorities accepted the ideas of the meeting participants and showed so that their opinions have been heard,
- cooperation between residents, entrepreneurs and local authorities in energy planning in the commune increased through good communication, common dialog, hearing each other and the use of expert knowledge,



- involvement of all cluster members in the realization of cluster goals and encouraging other inhabitants of the commune to join the activities aimed at using the RES and taking care of the air quality in the commune.

After analysing different opinions of project stakeholders, it is concluded that despite different attitudes of stakeholders the implementation of the pilot action and the bottom-up planning process is beneficial. Engaging commune residents in shaping and implementing energy policy can be achieved through the cooperation of public authorities, experts and local business leaders by consistently implementing planned steps, coordinating activities and continuously motivating the community to further cooperate by using various methods and channels.

That makes it then easier to decide whether or not to invest in RES and EE technologies. Investment project development by the energy cluster or other citizen energy groups requires the understanding and engagement of stakeholders in the planning and in the implementation phase of the project. This should be reached through good communication, through the meetings with the experts who will pass the knowledge about renewable energy sources and investments with the use of RES and will inspire confidence and belief in the benefits of renewable energy and distributed energy.

Even with initial scepticism and criticism from residents/stakeholders in the initial stages of joint planning for RES and EE investment implementation, it is possible to achieve a change of attitude and successive involvement of the resident in the commune through the transfer of expert knowledge and joint analysis of proposals, resulting in joined efforts to achieve common goals.

Main problems/milestones/challenges/risks connected to the pilot action which influence its successful implementation and the solutions for overcoming them:

The description and plan of the ecological education the pilot action was prepared taking into consideration the arrangements made during the workshop meetings within the ENES-CE project. This document was attachment to the Letter of Intent - on the decision of the members of the energy cluster in the Niemce Commune, in the Lubelskie Voivodeship: "Niemce Energy Cluster", on the choice of the pilot action to be implemented in the timeframe of the ENES-CE project in the Niemce Commune in the Lubelskie Voivodeship. During the implementation, there were changes in the dates of meetings and some topics were discussed in more detail, depending on the interest of participants in the pilot action.

Tasks as part of the organization of the pilot action were discussed during the preparation of the plan for the implementation of the pilot action and by signing the letter of intent. Moreover, cluster members were open to changes and willingly complemented each other, which contributed to the success of the pilot action.

Successful implementation of the pilot action depends largely on the good cooperation between public and private entities and their involvement in activities. It is important to pursue a common goal. Then the pilot action participants are able, in the name of achieving this goal, to commit themselves strongly and adapt to jointly agreed activities as well as to conditions that change from time to time, which were difficult to predict in the planning phase.

In the pilot action, 3 meetings were organized, reaching the target groups defined above, except children, due to the aggravating epidemiological situation. Considering the risk of disease, it was decided not to organize a meeting with children during the implementation of the pilot action by the Niemce Energy Cluster. It was recommended that, once the epidemic situation has stabilised, NEC should organise a meeting with children, who then reach out to parents, and also play an important role in the education chain.

This meeting was organized by energy cluster on 12.05.2022 in primary school with children (13-14 years old). Members of the Niemce Energy Cluster together with Marshal



Office representatives conducted an interactive lesson for school pupils in Municipality of Niemce. During this lessons children could find out how to care about our environment and clean air. They discussed how they can save more energy in their daily lives. It was also a great opportunity to experiment with renewable energy and discover how photovoltaic or solar panel work.

Contribution of the pilot action to relevant regulatory requirements, sustainable development (including possible environmental effects) and horizontal principles including equal opportunities and non-discrimination in the targeted region:

The pilot action has a positive impact on the EU's horizontal policy of sustainable development. This policy focuses, inter alia, on such elements as: environmental protection by limiting gas emissions; creating and disseminating new or environmentally friendly technologies.

With the pilot action, the Niemce Energy Cluster has worked to raise the sensitivity of the target groups to ecological issues, raised awareness of the possibility of reducing low emissions in the commune and informed them about the possibility of choosing air quality notification systems in the future. Niemce Energy Cluster promoted the idea of cooperation within the Energy Cluster and the possibility for potential new members to join the cluster and join the common bottom-up energy planning and saving energy in the Niemce Commune. In addition, the action was conducted to promote understanding of the need to take joint action to reduce air pollutant emissions and improve the energy efficiency of communal and residential buildings in the commune by investing also in installations using renewable energy sources.

The pilot action documentation of corresponding activities while planning and implementing the pilot action including pictures and photos and other relevant project deliverables, web links, etc. proving the implementation of the pilot action:

The idea of the pilot action was the outcome of the arrangements made during the workshop meetings within the ENES-CE project. The meetings were attended by the citizens involved in the process of the update of the Low-Carbon Economy Plan for the Niemce Commune and the creation of the citizen energy group in the Niemce Commune.

In accordance with the Letter of Intent regarding the pilot ecological education action for the local community signed by the members of the Niemce Energy Cluster and with the assumptions presented in the document D.T3.10.3 - defining the pilot action to be implemented in the Niemce Commune, the Lubelskie Voivodeship, made in LCEP/SEAP/SECAPs, the pilot action of education was to cover a minimum 2 meetings, each of them should last about 90 minutes. The target groups were defined as: inhabitants (seniors, families, children or other stakeholders) as well as entrepreneurs from the Niemce Commune.

In attachment:

- Letter of Intent and plan of the pilot action

In the framework of the planned pilot action 3 meetings were organized, reaching the target groups defined above, except children, due to the aggravating epidemiological situation. Considering the risk of disease, it was decided not to organize a meeting with children during the implementation of the pilot action by the Niemce Energy Cluster.

In attachment:

- 3 programs for meetings 3 PowerPoint presentations

The total number of people who participated in the conducted the pilot action was 68, including:



in meeting No. 1 - 31 people, in meeting No. 2 - 17 people and in meeting No. 3 - 20 people (of which 3 people did not sign the lists of attendance).

In the attachment:

- Scans of 3 attendance lists from 3 meetings conducted by Niemce Energy Cluster in the pilot action. (3 persons did not sign in the attendance lists).
- Scans of the questionnaires from the 3 meetings.

The meeting summarizing the pilot action was organized on 12.05.2022, the cluster members informed about results of the pilot action, what they have done after the pilot action and also what are the plans for work in cluster after the realization of the ENES-CE project. At the same day the members of the Niemce Energy Cluster together with Marshal Office representatives conducted an interactive lesson for school pupils in Municipality of Niemce.

In the attachment:

- Scans of 2 attendance lists from 2 meetings conducted by Niemce Energy Cluster after the pilot action on 12.05.2022.
- Scans of the questionnaires from the meeting in primary school.
- Programs of the two meetings on 12.05.2022 after the pilot action

Photographic documentation

In order to document the realization of informational and promotional meetings which were carried out as part of the pilot ecological education action implemented by the Niemce Energy Cluster on 03.12.21 and 10.12.21 (2 meetings), photographic documentation is presented below.

The website and FB of the Commune served as vehicles for the invitation and announcement of the meetings with the residents and entrepreneurs on 3.12.21 and 10.12.21 of the pilot action. The information was posted on the website of the Niemce Commune.

<https://www.niemce.pl/strona-glowna/aktualnosci/n,234169,zaproszenie-na-spotkanie-kazdy-mieszkaniec-i-przedsiębiorca-z-gminy-niemce-ma-wplyw-na-czyste-powietrze-w-gminie.html>

<https://www.niemce.pl/strona-glowna/aktualnosci/n,234320,zaproszenie-na-spotkanie-w-ramach-klastra-energii-niemce-do-krasienina.html>

<https://www.niemce.pl/strona-glowna/aktualnosci/n,234415,spotkanie-pilotazowe-organizowane-przez-klaster-energii-niemce.html>

<https://www.facebook.com/gminaniemce/posts/pfbid02uhWeEWwnN2WvbcXnyf1gL7tAXoUAwEZnAiXqtZGPZ71zcG2t3PBgEaPpiR5rrU2wl>

<https://www.facebook.com/gminaniemce/posts/pfbid0P2v9M6ENNSE4jmx9EzaS2wrr8V33Zwzh29nh2Jvq6xq6htvVsPL14ohj7LXqGsU8l>

<https://www.niemce.pl/strona-glowna/aktualnosci/n,254958,zaproszenie-do-udzialu-w-spotkaniu-informacyjno-promocyjnym-klastra-energii.html>



Source: The Niemce Commune - A member of the Niemce Energy Cluster



2.2. Lessons learned while planning and implementing the pilot action

Elaborate on the lessons learned while planning and implementing the pilot action and description of the added value of the implemented pilot action to transnational cooperation and knowledge transfer within the partnership.

While planning the pilot action it was important that:

- organization of the workshop meetings reaching as many stakeholders as possible through the available communication channels and engagement of all participants in the discussion on the future RES investments with the support of the external expert, energy advisor and other persons, entrepreneurs who are respected in the commune,
- high participation, active engagement and open cooperation of the local authorities during workshops in the planning phase of the investments/the pilot action with residents and other stakeholders, experts by finding the solutions to problems with the support of the Commune employees, the attorney-at-law, energy expert,
- hearing the voice of the residents, entrepreneurs, NGOs, other institutions, and stakeholders and taking it into account in the energy planning by the local authorities,
- coordination of the communication for and after meetings and during the meetings, coordination of all activities, the summary of the discussions, settings aims and conclusions from the arrangements, description of the planned steps, distribution of tasks,
- preparing a good pilot action plan and after agreeing on a common goal, target groups and distributions tasks, the financial issues, signing the agreement on the implementation of the pilot action.

While the pilot action was carried out, it could be seen that successful implementation of the pilot action largely depends on the good cooperation between cluster members, engagement of residents, public and private entities and their involvement in activities.

It is important to pursue a common goal. That's why participants were able to commit themselves strongly and adapt to jointly agreed activities as well as to conditions that change from time to time, which were difficult to predict in the planning phase.

While carrying out the pilot educational action, it was noticed that some inhabitants see the benefits of creating an energy cluster in order to cooperate in energy planning and implementation of RES investments, but they fail to fully understand the idea of transforming an energy cluster and further plans of creating a special purpose vehicle for the realization of RES investments, therefore they approach possible joint actions with some uncertainty. This, in turn, leads to the conclusion that the promotion of cooperation within the cluster should be continued in order to dissipate all possible uncertainties and to inspire confidence of new groups of inhabitants necessary to implement joint RES and EE investments.

Lesson learned from the pilot action is also that involving citizens in energy planning (planning of investments in RES and EE) is a long process, requiring the transfer of knowledge, the demonstration of goals and opportunities, as well as the explanation of economic, technical and environmental dependencies related to the



implementation of jointly planned energy investments and the creation of perspectives for cooperation.

Building the trust and confidence in the success of the created visions and plans which in the initial lack of knowledge of residents seems to be unrealistic, but can change with the education and explanation of doubts and questions. It has been and will continue to be a major challenge for local authorities and leaders and NEC members.

At the same time, by showing the first effects of joint work and education of the residents, it is possible to inspire public confidence in a wider group of inhabitants and stakeholders and encourage them to cooperate in the preparation of projects and obtaining financial support for the implementation of investment measures included in the updated energy strategy which in the Niemce Commune is the Low-Carbon Economy Plan for the Niemce Commune.

Another lesson learned is that even with initial skepticism and criticism from residents/stakeholders in the initial stages of joint planning for RES and EE investment, it is possible to achieve a change of attitude and successive involvement of the residents in the commune through the transfer of expert knowledge and joint analysis of proposals, resulting in joined efforts to achieve common goals.

The added value of the implemented pilot action is that the gathered by the Niemce Energy Cluster experiences and results of the ecological education the pilot action can be promoted to other communes in the Lubelskie Voivodeship as examples of good practices of ecological education, involving inhabitants in the bottom-up process of energy planning and energy saving in the future in the Commune and promotion of creating local energy-saving communities, citizens energy groups. This experience and knowledge can also be used in transferring the experience to other communes in Poland or the EU.

2.3. Lessons learned while using the tool Community energy investment guidelines for defining technical, legal and economic aspects of selected the pilot action

Describe how the tool was used while planning the pilot action in the region and elaborate on the lessons learned while using mentioned tool in the aspect of identifying and selecting the implemented pilot action (D.T2.2.2 Community energy investment guidelines - technical, business and legal aspects).

During workshop 3 in 2020, the expert talked about the commune's priority activities and investments in renewable energy (e.g., planned PV installations) based on Tool 2 developed in the ENES-CE project.

Tool 2 may have been useful during the workshops, but it should be adapted to the specificity of the projects and the user's knowledge to explain the economic, technical and environmental dependencies related to the implementation of jointly planned energy investments.



3. The established energy-saving community in the Niemce Commune in the Lubelskie Voivodeship

3.1. Specification of established energy-saving community: Niemce Energy Cluster”

Table 2 - General information on the established energy-saving community

Project deliverable	T.3.10.2 The creation of the energy-saving community in the Lubelskie Voivodeship in the Niemce Commune
Name of energy-saving community	"Niemce Energy Cluster"
Establishment date of the energy-saving community	On 22th of October 2021 in the Niemce Commune in the Lubelskie Voivodeship
Legal status/form of the established energy-saving community and connection to the relevant regulatory framework if applicable	This energy cluster is not a legal person and does not conduct business activity. It is allowed to transform the cluster into an energy cooperative, a commercial company or any other legal form enabling business activities in the area of heat and electricity distribution.
Number of members	10 - the civil-law agreement on the establishment of the energy cluster in the Niemce Commune, in the Lubelskie Voivodeship: "Niemce Energy Cluster" and the cooperation of the cluster members, has been signed by the Niemce Commune, 3 economic entities, 2 associations and 4 inhabitants of the Niemce Commune.

Please describe the characteristics of the established energy-saving community in the Niemce Commune in the Lubelskie Voivodeship in accordance with the following aspects:

Direct positive and/or negative effects of the establishment of the energy-saving community in the Lubelskie Voivodeship:
The immediate positive effect of the establishment of the “Niemce Energy Cluster” was the cooperation of its members during the first activity of the cluster, i.e., the implementation of the pilot action of ecological education for the local community entitled “Every resident and entrepreneur from the Niemce Commune can contribute to clean air in the Commune.” By showing the first effects of joint work, (which was the establishment of “Energy Cluster Niemce” and a common update of the Low-Carbon Economy Plan) it was possible inter alia to promote Niemce Energy Cluster and to educate ecological the local community and to inspire public confidence in a wider group of inhabitants and stakeholders and encourage them to cooperate in the future.



Main problems/obstacles/challenges occurred during the establishment and operation of the energy-saving community in the Niemce Commune in the Lubelskie Voivodeship and how they were solved by responsible partner:

When creating the "Niemce Energy Cluster", it was necessary to agree on a number of formal issues in order to sign the agreement. An important role was played by the employees of the commune and engagement of inter alia the decisions makers and the attorney-at-law.

Important by the creation of the energy cluster was that representatives of the Niemce Commune, assumed the role of the cluster coordinator, and persons who have experience in the implementation of RES investments agreed to represent the energy cluster.

Please describe the differences between different stakeholder groups included in the established energy-saving community and elaborate on their interest in further dialogue, cooperation and changes in existing relations:

Members of the "Niemce Energy Cluster": the Niemce Commune, 3 economic entities, 2 associations and 4 inhabitants of the Niemce Commune. All members function in the Cluster on equal rights. The Energy Cluster consists of the following bodies: a) Cluster Council, b) Coordinator of the Energy Cluster. Cluster Council is the highest body of the Cluster, which includes one representative of each Member. The Council is the decision-making and controlling body of the Cluster.

By creating the energy cluster, and planning and implementing the pilot action it was necessary to establish a number of formal issues in order to sign the Agreement. At the same time, it is only the basis for joint planning, agreeing on the details of obtaining financing for the investment activities in renewable energy proposed by the cluster members, as well as educational and consulting activities as part of energy planning in the Niemce Commune.

Planning the financing and implementing cluster investments in the future involved discussing plans for creating a special purpose vehicle for the realization of RES investments.

The aim of the Cluster is to support the development of local distributed energy and improve energy security in an economically effective manner, respecting the principles of sustainable development.

As it was seen while implementing the pilot action, the cooperation between public and private entities can be a success when all of them have the same goal and are able, in the name of achieving this goal, to commit themselves strongly and adapt to jointly agreed activities as well as to conditions that change from time to time, which were difficult to predict in the planning phase.

The influence of the established energy-saving community on further investments in the local energy infrastructure of the Niemce Commune and their cooperation with public authorities:

The civil-law agreement on the establishment of the "Niemce Energy Custer" is only the basis for joint planning, agreeing on the details of obtaining financing for the investment activities in renewable energy proposed by the cluster members. The close cooperation between the public authorities and cluster members can be now easier because the Niemce Commune is the Energy Cluster Coordinator and other cluster members have some experience in implementing energy investments and all have the same aim to support the



development of local distributed energy and improve energy security in an economically effective manner, respecting the principles of sustainable development.

For the realization of investments in RES in the further, there are plans of creating also a special purpose vehicle, therefore there are important education activities for the next residents in the commune, and promotion and consulting of the planned activities as part of energy planning in the Niemce Commune.

Sustainability of the energy-saving community in the future after the project end and possible actions to be taken in the future in order to maintain the active work of the established citizen energy group/cooperative in the target region:

In the civil law agreement on the establishment of the “Niemce Energy Cluster” there is a clause regarding the sustainability of the cluster: in § 8 Final Provisions, 1. This Agreement is concluded for an indefinite period of time. Provided that the created Cluster will be durable under the ENES-CE project until 2025 (in accordance with section 5 sec. 2 of the Agreement of October 18, 2018, concluded between the Lubelskie Voivodeship and the Niemce Commune).

The recitals section of the agreement declares that the cluster was created for the following purposes (not exclusively listed):

Raising citizens' awareness of activities related to:

- Energy efficiency and founding opportunities.
- Implementing a low-carbon economy.
- Protection and care for the environment.
- Saving energy through its rational and efficient use.
- Ensuring energy security.
- Achieving energy autonomy.
- Tackling fuel poverty.
- Introduction of low-carbon technologies.

To strive, with its capabilities, to enable the financing of the above-mentioned activities in order to achieve the objectives set out in the document "Energy Policy of Poland until 2040".

Integration of entities associated in the Cluster to facilitate the introduction of solutions that meet the goals set for the low-emissions economy using the potential of Cluster members.

The functioning of the Niemce Energy Cluster will be linked to the implementation of the Low-Carbon Economy Plan in the commune and aims to support future bottom-up processes of citizen energy planning and the implementation of investments for the reduction of emissions in the commune.

As the first activity after the establishment of the Niemce Energy Cluster, its members have implemented the pilot action of ecological education for the local community. During the pilot action, the members of the Niemce Energy Cluster inter alia promoted the idea of cooperation within the cluster and the possibility for potential new members to join the cluster and join the common bottom-up energy planning in the Niemce Commune.

By showing the first effects of joint work in the energy planning in the commune, which were the establishment of the citizen energy group and common list of the investment in



RES included in the updated Low-Carbon Economy Plan for the Niemce Commune cluster wanted to inspire public confidence in a wider group of inhabitants and stakeholders and encourage them to cooperate in the future preparation of projects and obtaining financial support for the implementation of investments in RES.

It is also recommended to organize similar information and education actions in the future by NEC and the Niemce Commune as its coordinator. Niemce Energy Cluster can use the available plan prepared by an external expert within the ENES-CE project: "Plan of consultation and advisory system regarding possible RES and EE investments in the Niemce Commune with the Communal Engineer or an external expert". This plan defines the consultation system, which can include:

1. Annual meetings for more stakeholders,
2. Monthly meetings as part of stakeholder meetings individually.

The Niemce Energy Cluster is waiting for the announcement of the call for proposals, and will consider preparing and applying for a subsidy from program Funds for Lubelskie 2021-2027 addressed for local energy groups, such as energy clusters.

3.2. Lessons learned from implementing the pilot action and establishing the energy-saving community in the Niemce Commune in the Lubelskie Voivodeship.

Elaborate on the lessons learned while establishing and working with the consumer energy group in the Niemce Commune and describe the added value of the established consumer energy group to transnational cooperation and knowledge transfer within the partnership.

Lessons learned while establishing the "Niemce Energy Cluster", it that it was necessary to agree on a number of formal issues in order to sign the agreement. It was also vital to agree on the roles that potential members will have in the created cluster, involve the attorney-at-law working for the commune and local authority to accept the prepared documents in terms of content and law.

For the organization and implementation of the pilot action of ecological education for the local community, it was important to involve as many cluster members as possible in order to promote the energy cluster and show the next group of residents and entrepreneurs the idea and first results of common cooperation in energy planning in the commune.

Moreover, involving citizens in energy planning and establishing the energy-saving community is a long process, requiring the transfer of knowledge, showing of goals and opportunities, as well as the explanation of economic, technical and environmental dependencies related to the implementation of jointly planned energy investments and the creation of perspectives for cooperation.

Building the trust and confidence in the success of the created visions and plans which in the initial lack of knowledge of residents seems to be unrealistic, but can change with the education and explanation of doubts and questions. It has been and will continue to be a major challenge for local authorities and leaders and Niemce Energy Cluster members. At the same time, by showing the first effects of joint work and education, it is possible to inspire public confidence in a wider group of inhabitants and stakeholders and encourage them to cooperate.



While carrying out the pilot educational action it was noticed that some inhabitants see the benefits of creating an energy cluster in order to cooperate in energy planning and implementation of RES investments, but they fail to fully understand the idea of transforming an energy cluster and further plans of creating a special purpose vehicle for the realization of RES investments, therefore they approach to possible joint actions with some uncertainty. This, in turn, leads to the conclusion that the promotion of cooperation within the cluster should be continued in order to dissipate all possible uncertainties and to inspire the confidence in new groups of inhabitants which is necessary to implement joint RES and EE investments.

The added value of the established energy-saving community to transnational cooperation and knowledge transfer within the partnership is that the knowledge and experiences gathered while establishing the “Niemce Energy Cluster” and cooperation with the local community in common bottom-up energy planning can be used in **transferring the experience to other communes in Poland or the EU. These experiences can be used also for the cooperation in future EU projects.**

The experiences gathered while establishing the “Niemce Energy Cluster” in the ENES-CE can be promoted on the regional level to other communes in the Lubelskie Voivodeship as examples of good practices of involving inhabitants in the bottom-up process of energy planning in the commune and creating local energy-saving communities.

3.3. Lessons learned while using the tools for participatory energy planning in the establishment and future operation of the established energy-saving community in the Niemce Commune in the Lubelskie Voivodeship

Elaborate on the lessons learned while using of mentioned tools in the aspect of engaging relevant stakeholders in local energy planning and using relevant communication tools and strategies which will further engage the community, e.g., citizens in local energy planning in the targeted region (D.T2.2.1 Co-design workshop methods for engaging participants in local energy planning and D.T2.2.3 Communication methods for local energy plans and creating an atmosphere of acceptance).

Tool 1 (D.T2.2.1 Co-design workshop methods for engaging participants in local energy planning) was used to organise regular workshop meetings with the stakeholders in the ENES-CE project. Workshops included presentations and discussions on proposals of investments with the use of RES to be implemented by the commune and the residents and discussions on common energy planning in the Niemce Commune, as well as the next steps in the ENES-CE project.

Common values and goals in energy planning were presented, the project idea, the engagement of active politicians from the commune in the project and energy planning. Experts from a different range of areas, residents, entrepreneurs, the energy advisor and the external expert participated in the meetings and discussed the proposals of the RES investments from the citizens.

Tool 3 (D.T2.2.3 Communication methods for local energy plans and creating an atmosphere of acceptance) included inter alia communication channels for 4 key groups that need to be informed about local energy plans and initiatives. These stakeholders are children, families, the business sector and the elderly. During workshop 3 in 2020, the revised energy plan was presented also to a wider public. In the aspect of digital



communication, there was used: the web homepage of the Niemce Commune and also a Facebook page of the commune. It is difficult to reach the business sector via Twitter, Instagram or LinkedIn. because not everyone uses it. Also, the commune does not have it.

Before and during the workshops, brochures were distributed to provide information about the project to reach the workshop participants. Short case study examples were presented along with the regular presentations. The investments in RES were described using simple descriptive language.

Tool 3 was also used for planning the target groups of ecological education of the local community in the Niemce Commune and the presentation of the investments in RES included in the updated LCEP and the implementation of the pilot action of ecological education by the established Niemce Energy Cluster.

4. Policy recommendations for creating a more stimulative energy-focused community

Please insert below any comments and/or propose possible policy recommendations for creating a more stimulative energy-focused community that you might have in connection to the preparation or implementation of your pilot projects (implementing the defined pilot action, establishing energy-saving community) or those that are reflecting the drawn lessons learned while implementing pilot projects in your region.

ENES-CE project provided a great source of inspiration on how to boost regional/local cooperation in order to support investments in RES with the involvement of citizens. It is very important to involve citizens in the process of building positive attitudes toward renewable energy investments from the beginning. ENES-CE results prove that citizens' awareness is the most important factor when it comes to generating new initiatives in renewable energy. However, in Lubelskie it is still a challenge for small communities to start working together, especially in terms of preparing joint green projects. So it is highly recommended that local authorities create policies with the emphasis on the importance of implementation of RE projects with the engagement of citizens. At the same time, they should also be part of this process.



5. Conclusion

Thanks to the ENES-CE project, not only the employees of the commune but also energy experts and advisors, employees of local and regional institutions, local NGOs, entrepreneurs and inhabitants of the Niemce Commune were involved in the process of joint review and update of energy strategy Low-Carbon Economy Plan for the Niemce Commune (LCEP), energy planning and planning of investment activities with the use of RES and EE.

This made it possible to verify the planned measures based on expert knowledge and proposals from many social and interest groups in the commune. External expert demonstrated the logic and transparency of the selection of planned measures/investments to achieve low carbon emission in the commune.

Participation of the residents and other stakeholders in energy planning was achieved by interviews (questionnaires), a series of social consultations - workshops as well as demonstrating at each meeting that the voice of commune inhabitants and entrepreneurs is heard, discussed and taken into account. This allowed us to achieve a level of trust in the commune, which resulted in creating of the Niemce Energy Cluster as well as planning a series of investment measures with the aim to reduce the final energy consumption, increase the energy production from RES, reduce emissions of CO₂ and other pollutants in the Niemce Commune.

Moreover, despite different attitudes of stakeholders the implementation of the bottom-up planning process is beneficial for the local community. Engaging commune residents in shaping and implementing energy policy can be achieved through the cooperation of public authorities, experts and local business leaders by consistently implementing planned steps, coordinating activities and continuously motivating the community to further cooperate by using various methods and channels.

Even with initial skepticism, reluctance and criticism from residents/stakeholders in the initial stages of joint planning for RES and EE investment implementation, it is possible to achieve a change of attitude and successive involvement of the stakeholders in the commune through the transfer of expert knowledge and joint analysis of proposals, resulting in joined efforts to achieve common goals.