



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

A.T3.5 IMPLEMENTATION OF PILOT ACTIONS IN MUNICIPALITY OF KOPER

D.T3.5.2 - Report on pilot project implementation in Municipality of Koper

6 2022





Content

List of Tables.....	3
1. Introduction.....	4
2. Implemented pilot action in Municipality of Koper	5
2.1. Specification of implemented pilot action	5
2.2. Lessons learned while planning and implementing the pilot action	6
2.3. Lessons learned while using the tool Community energy investment guidelines for defining technical, legal and economic aspects of selected pilot action	7
3. Established solar energy cooperative in Municipality of Koper.....	7
3.1. Specification of established solar energy cooperative.....	7
3.2. Lessons learned while establishing and working with solar energy cooperative in Municipality of Koper	9
3.3. Lessons learned while using the tools for participatory energy planning in establishment and future operation of established solar energy cooperative in Municipality of Koper	10
4. Policy recommendations for creating more stimulative energy focused community.....	10
5. Conclusion.....	11



List of Tables

Table 1 - General information on implemented pilot project action	5
Table 2 - General information on established solar energy cooperative	7



1. Introduction

The Report on pilot project implementation in Municipality of Koper is developed for providing main lessons learned from implementing the pilot action, establishing the solar energy cooperative and using participative tools for citizen engagement during the implementation of mentioned activities in Municipality of Koper. The document highlights the main problems and obstacles which posed a risk for successful realization of implementing pilot action and establishing the solar energy cooperative and clearly describes counter actions and solutions adopted by responsible project partner in real case scenario.

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 Municipality of Koper, the lessons learned and added value of the action to transnational cooperation were elaborated as well as its contribution to relevant regulatory requirements, sustainable development (including possible environmental effects) and horizontal principles including equal opportunities and non-discrimination. In order to prove the realization of the implemented pilot action, additional documentation including pictures and photos and other relevant project deliverables, web-links were also provided. Within the first part of the document the relevance of using the tool D.T2.2.2 Community energy investment guidelines - technical, business and legal aspects for identifying and final selection of mentioned pilot action was also elaborated.

The second part of the document deals with the issue of establishing the solar energy cooperative in the Municipality of Koper and elaborates other relevant data of the proposed solar energy cooperative. In connection to that, the main lessons within establishment of solar energy cooperative were outlined as well as the contribution of using the tool D.T2.2.1 Co-design workshop methods for engaging participants into local energy planning in engaging the citizens to join mentioned solar energy cooperative. In order to ensure the sustainability of established solar energy cooperative in targeted region and its operation outside of the project duration, it is important to invite new members to be a part of the group and further encourage the implementation of community energy projects. Linked to this statement 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.

All the lessons learned within the mentioned activities are considered to be key (both positive and negative) experiences collected throughout the lifecycle of a pilot project action and establishment on solar energy cooperative and are reflecting the knowledge and understanding of relevant partner, which can be convert into actions aiming at fostering the implementation of energy projects important for the community in the future. All the lessons learned while implementing the pilot action, establishing the solar energy cooperative and using participative tools for citizen engagement during the mentioned activities in Municipality of Koper 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. Implemented pilot action in Municipality of Koper

2.1. Specification of implemented pilot action

Table 1 - General information on implemented pilot project action

Project deliverable and title of the pilot action	D.T.3.4.3 Definition of the pilot actions in Municipality of Koper
The main goal of pilot action	Modernization of public lighting
Start and end date of the pilot action	Oct. 2021 - Feb. 2022
Technical information on the implemented pilot action (break down of investment costs)	15.000,00 EUR

Please describe the implemented pilot action in in Municipality of Koper in accordance with the following aspects:

Experimental nature and demonstration character of the pilot action:
<i>Investment into a smart lighting - modernisation of public lighting for the Slemenska road was made in accordance with the Decree on limit values due to light pollution of environment, with amendments and supplements. 36 inefficient luminaires were replaced with new LED luminaires. Control equipment for lighting control and management was installed - the so called SCADA system. SCADA system can communicate with an individual lamp by controlling the operation of the lamp, adjusting the power of the lamp, as well as location detection and fault analysis.</i>
Expected socio-economic impacts ¹ and benefits of its implementation for the concerned territory and target groups and leverage of additional funds if applicable:
<i>Pilot action will contribute to increase traffic safety on the road.</i>
Sustainability of the pilot action results in the future after the project end and transferability to other territories and stakeholders:
<i>Pilot action is in line with one of the main action of Local energy concept and Sustainable Energy Action Plan. Energy savings and operating costs of the installed SCADA system, together with LED lighting technology, will contribute up to 60 percent lower lighting costs. On the other hand, this technology prolongs the life of the lamps and further contributes to the reduction of light pollution. Energy consumption after the implementation of the investment will decrease by 9.876 kWh per year. Energy cost savings are estimated on 1.086,40 €.</i>

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



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 pilot action:

The development of public lighting strives for smart lighting - a control system that interconnects individual lamps into a single centralized control. The pilot action is an example of good practise with cost savings, better and cheaper maintenance, control and flexible management of the system and can be replicated in other cities.

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

Pilot project investment was done with some delay - due to difficulties in the supply of material. No other major problems were detected during the implementation.

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

Successful implementation of pilot action investment has a positive environmental effect - less light pollution.

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:

News about the pilot action investment:

<https://ekopercapodistria.si/nasi-kraji/obcina-na-slemenski-cesti-zamenjala-36-potratnih-svetilk/>

2.2. Lessons learned while planning and implementing the pilot action

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

On January 2021, the Municipality of Koper signed the accession form to the Covenant of Mayors for Climate Change and Energy. With this, the Municipality of Koper joined the European movement, which advocates increasing energy efficiency and the use of renewable energy sources. Many measures in the field of reducing greenhouse gas emissions in the Municipality of Koper have already been successfully implemented. There are still a lot of challenges ahead of us. We are aware that local administration is a key stakeholder in promoting the energy transition and combating climate change. On this basis it is highly recommended that the local administrations take over the leading role and becomes an example of best practice to citizens and other authorities. One of the steps towards reducing carbon emissions is also the renovation of public lighting, which was done under the ENES-CE project.



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

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

Tool 2 - D.T2.2.2. was used for the calculation of Solar power plant that the solar energy cooperative will invest and install on the roof of primary school. Community investment guidelines were disseminated within the Municipality of Koper - Office for investment and Office for Public Utilities, Environment and Transport, that are dealing with energy projects.

3. Established solar energy cooperative in Municipality of Koper

3.1. Specification of established solar energy cooperative

Table 2 - General information on established solar energy cooperative

Project deliverable	<ul style="list-style-type: none"> - Additional (4th) the Workshop. - Letter of intent. - Review of legal bases of renewable energy sources and cooperatives. - Business model of the solar energy cooperative in local community Sv. Anton - Legal framework for the installation of a solar power plant on the roof of the primary school - Act of the establishment of the solar energy cooperative. - Basic cooperative rules. - Documents for municipal council meeting
Name of solar energy cooperative	Proposed name: Sunny cooperative Koper (<i>Sončna zadruga Koper</i>)
Establishment date of solar energy cooperative	Municipal council meeting - 28 th July 2022 Establishment - August 2022



Legal status/form of established solar energy cooperative and connection to relevant regulatory framework if applicable	Cooperative
Number of members	5 candidates to become members

Please describe the characteristics of established solar energy cooperative in Municipality of Koper in accordance with the following aspects:

<p>Direct positive and/or negative effects of the establishment of solar energy cooperative in Municipality of Koper:</p> <p><i>Within the pilot action, Municipality of Koper supported the creation of a solar energy cooperative in the suburban part of the municipality - in local community Sv. Anton. We have concentrated to individuals - local residents, who do not have a suitable roof for the installation of a solar power plant or cannot afford such an investment on their own. Primary school Sv. Anton, Local community Sv. Anton and House of culture were also invited to take an active part.</i></p> <p><i>Positive effect: - by using solar energy, members of the cooperative would become more energy independent and would help reduce the local community's dependence on fossil resources; - by uniting the population in an energy cooperative, we get the opportunity to manage resources in our local community and strengthen the local economy. As a result, the carbon footprint would be reduced.</i></p>
<p>Main problems/obstacles/challenges occurred during the establishment and operation of solar energy cooperative in Municipality of Koper and how they were solved by responsible partner:</p> <p><i>Main problem during the establishment of energy cooperative was Slovenian energy legislation. The measure of self-sufficiency in electricity from renewable energy sources has been implemented in Slovenia since 2016, on the basis of the Energy Act and on the basis of the issued Decree on self-sufficiency in electricity from renewable energy sources. Due to EU legislation, the field of self-sufficiency was newly comprehensively regulated by the Act on promotion the use of renewable energy sources, which entered into force in August 2021. A new regulation on self-sufficiency is still on ongoing process. We are currently in a transitional period, until the implementation of all bylaws. Consequently, it is difficult to set up a cooperative model and establish the cooperative, that will work and operate after the implementation of bylaws. Transition period between old and new legislation gave a lot questions, which needed answers from the Ministry of Infrastructure, Court of Auditors, Electricity distribution system operator... Different legal opinions were obtained.</i></p> <p><i>Big challenge was how to provide a sufficient level of motivation for citizens to take an active role in the cooperative. We couldn't find appropriate candidate to be the president of the cooperative. Residents, who would like to join, do not won't to take an active part and responsibility for leadership. This problem arises from the fact that, cooperatives are a novelty in Slovenia, so there are still many uncertainties and fear of the new. Municipality of Koper found the solution - municipality will join the cooperative and will try to take the leading force in the first years. We hope that over time people will get a positive opinion and trust in the cooperative and take the lead.</i></p>



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

We informed the president of the local community Sv. Anton, who expressed support of the project and interest in including local community in the solar cooperative. We have involved school, House of culture and local residents of Sv. Anton were. The biggest problem was people's lack of trust in something new (cooperation).

All potential members of cooperative have the same reason to join the cooperative - energy independent, reduction of electricity costs.

The influence of established solar energy cooperative on further investments in the local energy infrastructure of Municipality of Koper and their cooperation with public authorities:

Newly established solar energy cooperative can become a good example of good practice. The model that was prepared can be transferred to other projects and investments. Municipality of Koper would like to implement more projects. Residents of other local communities already expressed interest for using public buildings for installation of power solar plants. We wish that in the future the cooperation will grow with similar projects.

Sustainability of the solar energy cooperative 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:

Solar energy cooperative is in line with one of the main action of Local energy concept and Sustainable Energy Action Plan. Municipality of Koper would like to reduce CO2 emissions by at least 40 % by 2030.

3.2. Lessons learned while establishing and working with solar energy cooperative in Municipality of Koper

Elaborate the lessons learned while establishing and working with solar energy cooperative in Municipality of Koper and describe the added value of the established solar energy cooperative to transnational cooperation and knowledge transfer within the partnership.

Unclear legislation caused a lot of work and took a lot of time to come to the final conclusions on how the cooperative would work best. This resulted in mistrust and withdrawal from cooperation among some locals who showed interest in joining the cooperative at the first workshop. Despite the Covid situation, all workshops and meetings were presented live, as we were aware that we had to approach people personally. We addressed all age groups, so we assumed that with online workshops we would lose a large part of interested citizens. The implementation of live workshops proved to be positive. We found that examples of good practices from abroad have no effect on people's motivation, while examples from Slovenia have a positive effect. The established cooperative will certainly be an example of good practice of connecting people - community energy projects bring collective benefits to the wider community.



3.3. Lessons learned while using the tools for participatory energy planning in establishment and future operation of established solar energy cooperative in Municipality of Koper

Elaborate the lessons learned while using of mentioned tools in 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 targeted region (D.T2.2.1 Co-design workshop methods for engaging participants into local energy planning and D.T2.2.3 Communication methods for local energy plans and creating an atmosphere of acceptance).

Tools were used at workshops and meetings when engaging stakeholders. Transparent communication of intentions and clear commitments ensure synergies where common goals and personal initiatives come together for the benefit of all.

4. Policy recommendations for creating 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 defined pilot action, solar energy cooperative) or those that are reflecting the drawn lessons learned while implementing pilot projects in your region.

The measure of self-sufficiency in electricity from renewable energy sources has been implemented in Slovenia since 2016, on the basis of the Energy Act and on the basis of the issued Decree on self-sufficiency in electricity from renewable energy sources. Due to EU legislation, the field of self-sufficiency was newly comprehensively regulated by the Act on promotion the use of renewable energy sources, which entered into force on 7th of August 2021. The purpose of the new act is to harmonize the national acquis with EU law. Until 31st of December 2023 we are in a transitional period when it is possible to set up cooperative under a new or old legislation. Both regulations have advantages and disadvantages.



5. Conclusion

Within the pilot actions Municipality of Koper gained a lot of experience on how to stimulate interest and involve different stakeholders into energy projects. We are proud to be the first in Slovenia to lay the foundations for the establishments of solar energy cooperative. It takes a lot of time and effort to motivate people and gain their trust.

