Annex 1 – Action plan template

Part I – General information

Project: Community owned and led energy for security climate change and employment (COALESCCE)

Partner organisation: Instituto Valenciano de Competitividad Empresarial (IVACE)

Other partner organisations involved (if relevant):

Country: Spain

NUTS2 region: Comunitat Valenciana

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Part II – Policy context

The Action Plan aims to impact:	X	Investment for Growth and Jobs programme
	□	European Territorial Cooperation programme
	□	Other regional development policy instrument

Name of the policy instrument addressed: Fondos Europeos para el Desarrollo Regional (FEDER)

Summary of Policy Context

IVACE-ENERGÍA, Valencian Business Competitiveness Institute, is a public body belonging to the Regional Government of Valencia. It is responsible for implementing the regional energy policy and for activities in the energy field in Valencia Region, having as objectives: energy diversification, energy efficiency and savings, energy self-sufficiency in the region, promotion of renewable energy, use of new energy technologies and respect for the environment.

IVACE activities include energy advice, monitoring and control of facilities, energy consumption and energy supply, training activities, information campaigns and collaboration with European Union in all the energy fields and industry sectors: cogeneration, biomass, solar energy, biofuels, renewable energy in buildings, municipalities energy management, hotels sector, textile industry.

VALENCIAN ENERGY AND CLIMATE CHANGE STRATEGY, 2030.

This is the low carbon energy strategy that was designed to deliver the original policy instrument (FEDER). At this stage it is impossible to modify this policy instrument. The funding in the ROP is 100% allocated. However we do believe that we are able to influence this policy that sets out the regions ambitions on energy transformation to 2030. In influencing this policy instrument it will allow future funding programmes to support community energy schemes in the future.

This strategy sets general objectives, as shown in the previous section that are divided into three levels: Mitigation, Adaptation, and Research, Awareness and Cooperation.

Measures and activities for mitigation, refers to the policies, technologies and measures to reduce GHG emissions and improve GHG sinks in public sector, energy sector, carbon footprint, diffuse sectors (transport and mobility, agriculture and ranching, residential and commercial sector including tourism, fluorinated gases, industry and residues), sinks and health.

Measures and activities for adaptation. The main goal of adaptation is to reduce vulnerability by promoting sustainable development. Adaptation to climate change must consider not only how to reduce vulnerability to negative impacts, but also how to benefit from the positives. The main sectors in which adaptation measures can be established are those in which the greatest impacts can be expected: health, emergency response, agriculture, biodiversity and forestry, hydrological resources, coastal zones and society.

Shared measures. These are common measures that include both mitigation and adaptation to climate change. The same ones are separated in three areas: one focused on research and generation of knowledge on climate change, another focused on environmental education that covers information, communication, awareness, education and training of society in order to promote social perception of climate change and its effects and a third, focused on the application of cooperation and sustainable development measures.

The actions that we have developed have been developed from the results of the Valencian peer review in 2018. This had two recommendations.

1. IVACE to keep register of potential projects with returns too low for big companies but sufficient for community
2. When the law changes, IVACE to lead pilot schemes:- 1) municipality working with energy co-op / community group based on Oldham model 2) community owned condominium block retrofit including solar PV and energy efficiency measures

Part III – Details of the actions envisaged

ACTION 1

1. The background

The best practice that has inspired the Action Plan has been the Tenant Electricity Model, by the public utility company Stadwerke Konstanz, in Germany, that we have seen during the Baden-Wuerttemberg Peer Review.

This project is based on the development of an energy supply model to tenants in tower blocks, based on CHP and PV combined with smart meters.

Generally the utility company owns the generation equipment, but it offers another option in which the housing company owns and operates the installation.

In this model, the company installs a centralized CHP or PV plant, which produces electricity that is shared among all the flats of the building. When there is a surplus of energy the electricity is sold to the grid, and when the consumption is higher than the production, electricity is bought from the grid to cover the demand.

Smart meters are used to measure and apportion own-generated and imported electricity to homes supplied, as well as the electricity sold to the grid.

In this way, the utility company operates as a energy services company (ESCO), which is a really interesting scheme to finance these projects, specially in cases when funding is not readily available. However, the part of this best practice that interest us the most is the sharing of electricity among the tenants of the building. This sharing is a delicate process in which an agreement must be reached between the tenants related to the way the electricity will be shared.

This kind of energy community project, where energy is shared among the participants, was not possible in Spain until very recently, and we want to replicate this model in the Valencia region where we believe it has a good potential. So this sharing of electricity production and consumption is the part of the best practice that we want to replicate as a way to promote energy communities and to increase renewable energy projects.

2. Action

To develop good business models for collective PV plants. Several business models will be studied:

- A cooperative promotes the plants, makes the investment, and then signs a contract with the consumers of the electricity produced.

  At the same time that the cooperative develops the business model, the cooperative is going to work with a group of interested citizens to develop a pilot project to demonstrate its viability.

  A contract template is going to be produced to be signed between the cooperative and the individual users. This template will serve as the basis for the implementation of future similar projects.

  For this action, the project consist only of one PV plant. Once the business model has been defined and the model contract has been prepared, the cooperative will analyse the potential for feasible replicability and they will set new goals according to this potential.

  ENERCOOP, in collaboration with the Crevillent city council, has chosen as the site for the pilot project, the roof of a municipal market. The estimated capacity of the plant will be 100 kW, with a total investment of around 110.000 €. The PV plant will supply electricity for around 50 different consumers (individual citizens and small businesses.
- The municipality promotes the plant, makes part of the investment, and the rest of the investment is made by individual citizens or SMEs. This model could serve also for the case in which the investment is going to be made by a community group.

Cooperatives and municipalities are going to play a central role in the development of community energy projects. Therefore, it is important to study the economic feasibility of these projects to find out the best options to finance and promote them.

There are several possible pilot projects for this action. The most promising is in the town of Crevillente, where an energy cooperative is based. The cooperative is big and has the monetary resources to fund the project.

STEPS:

- Elaboration of business models for shared PV plants: ENERCOOP will develop a model in which the cooperative own the PV plant and the cooperative group LA PINADA will develop a business model in which the plant is shared between the municipality and other local consumers.
- Discussions with interested citizens to allocate participations in the PV plants.
- Preparation of the pilot projects and actual implementation.
- Dissemination of the projects and analysis of steps to be taken to replicate them.

3. Players involved

- ENERCOOP: Electric cooperative based on the municipality of Crevillent, in the Alicante province. As a cooperative, ENERCOOP produces, distributes and sells electricity to its members, who are all citizens and some SMEs of the municipality. They are going to study the business model, to develop a pilot project, and to write down the contract template with the final users.

- LA PINADA: Community group working on a project for a sustainable new urban area that they are developing. They are also working with some municipalities to develop collective PV plants in which the municipality will be the promoter of the projects. They will help an interested municipality to develop a pilot project with this model.

- IVACE will give publicity to the pilot projects; we will publish some leaflets with the relevant information to serve as best practices for future development of projects.

- Municipality of Valencia: they will also disseminate the information regarding these projects, through their single point of information and assistance related to energy matters, for citizens of the Valencia city.

4. Timeframe

The expected timeframe is about 6 months to develop the business models and prepare the contract template, and 18-24 months (end of 2020 or beginning of 2021) for the implementation of the pilot projects.

5. Costs (if relevant)

The cost of the PV plant for the pilot project has been estimated at around 110.000 €. The cooperative ENERCOOP will assume the cost of the plant from its own resources.

The associated costs will be staff costs of the stakeholders involved, and a small budget for the publication of the results, that will be borne by the players involved.

6. Funding sources (if relevant):

ACTION 2

7. The background

The good practice example that has inspired this action is the Bioenergy Village, in which local authorities develop district heating networks using renewable energies (solar, CHP with biogas or biomass, etc) as the energy source for the heat network.

What interests us about this practice is the financial model, where the municipality is the promoter of the power plant and network, the municipality is part owner of the plant, and then it offers shares or participation in the project to citizens, community groups, cooperatives, etc.

We think that municipalites are a key actor in the development of energy communities, because they are the public bodies that are closest to citizens. The participation of municipalities will also increase the confidence of the general public to invest in these projects, as then it won't be only a private investment from the citizens but also a public investment from a trusted source. In Spain there is a lack of confidence in PV projects because of recent legislative changes, so this participation of the municipality would be a good way to offset this lack of confidence.

In this way, the municipalities raise money for the project, and on the one hand, the municipality fosters the participation of citizens and communities in the energy transition, who in this way participate in the project not only through the municipality but also as direct stakeholders. The municipality can launch different calls for its participation in the projects, creating a pool of projects in which a wide variety of citizens can invest, creating along the way a number of community energies in which citizens cooperate and are empowered as active agents and not just passive consumers.

The projects we want to tackle in the Valencia Region are different than in the German eco-villages. In the Bioenergy Villages, the projects are mainly district heating networks and in our case we are thinking about shared PV plants, but the part that interests us about this good practice is the role the municipality plays in promoting and leading these projects, which we think is key in this initial phase of the development of energy communities.

8. Action

There are some municipalities in the Valencia Region who want to develop renewable energy projects in this social way, offering citizens the possibility to participate in the projects as part owners and also as final consumers of the energy generated.

The idea is to install solar PV plants on the roof of the buildings of the municipality. The municipality will offers shares in the project to nearby households and SMEs, who will become participants in the project. The energy generated will be consumed in the building of the municipality and will be also shared among the participants in the project.

The municipality of Valencia is very interested in the development of these projects, but they are also aware that the local legislation is confuse and that there could be some legislative barriers to their implementation. So, as a first step, they want to go through all local ordinances than can affect the legalization of the PV plants.

The goal of this action is to identify barriers in the process of developing projects for collective PV installations, and to simplify regulation at the local level in the Valencia city. Legislation and procedures are still confuse and must be simplified in order to comply with the decree issued to promote self-consumption. For municipalities, regulation that can affect these projects is complex and is scattered among different municipal bylaws. All these regulations are going to be analysed in order to remove barriers and facilitate the implementation of the projects.

STEPS:

- The municipality of Valencia has started a study in which they are analysing all local regulation that can affect de development of renewable energy projects, with special focus on the installation of PV plants on the roofs of the buildings. (One example of this kind of regulation is the limitation in the height of what can be installed on a roof of a building, limitations that in some cases can prevent the installation of solar panels on that roof). Once the legislation is analysed, the municipality will make the necessary changes in these regulations to facilitate the implementation of these projects.
- The municipality of Valencia will work in a pilot project for community energy, in one of its buildings in the Valencia city. In this project, the municipality will offer to citizens the opportunity to be part of the project, and the part not allocated to citizens will be owned by the municipality. The electricity produced will be shared among all participants according to the individual investments.
- In addition, a guide will be elaborated to help citizens with the legalisation of PV plants at the local level. Such a guide already exists for national and regional regulations. What is missing is the part regarding regulations at local level. This missing part is going to be developed as part of this action.
- The municipality of Valencia, through its single point office for energy matters, is going to implement a service to help citizens navigate the process of the legalization of the renewable projects. Specifically, they will also implement a service to give citizens information about community energy, and will help them with the legalization and development of the projects.

9. Players involved

- Valencia Municipality: they will be in charge of identifying all normative around PV plants, regarding urbanism, protected buildings, environment, etc. Then they will determine which parts of the normative can hinder these projects, and regulations will be changed accordingly. They will work towards the implementation of a pilot project for community

energy in the city. They will assist citizens with the elaboration of a guide for municipal legalization of project, and they will also assist citizens and communities through their single point energy office.

The municipality has already decided a location for the pilot project, in a building where the municipality has some of its offices. The city council, through the Valencia i Clima foundation, will install a PV plant on the roof of the building and they will offer participation to the households nearby to share with them the electricity produced. The estimated capacity of the plant is around 20 kW.

- IVACE will help the municipality with the elaboration of the legalization guide, which will be published separately or as part of the general guide that includes the national and regional parts.

10. Timeframe

- Identification of barriers in local bylaws: 10-12 months
- Legislation guide: 5 months
- Pilot project: Project expected to be prepared by the end of 2019 and implemented during the year 2020.
- Single point energy office will launch in September, 2019.

11. Costs (if relevant)

The cost of the PV plant for the pilot project has been estimated at around 25.000 €. The city council will assume the cost of the plant from its own budget.

The associated costs will be staff costs of the stakeholders involved, and a small budget for the publication of the results, that will be borne by the players involved.

12. Funding sources (if relevant):

As regards to installations for electricity production with renewable sources, for self-consumption, IVACE has a funding line (loans), with regional funds. The pilot project could be financed through this funding line, which is part of the funds allocated in the frame of the Energy Strategy 2020 and the Climate Change Strategy 2030 for the enhancement of renewable energy projects.

The tasks related to the study of current legislation and the identification of legislative barrieres are being assumed by the Valencia Municipality.

The costs of the publication of the results will be assumed by IVACE as part of the Climate Change Strategy 2030.

Date: Septembre 12th, 2019

Signature: Julia Company Sanus (General Director of IVACE)

Stamp of the organisation (if available):