



**Interreg
Europe**

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ACTION PLAN



GENERAL INFORMATION

Project: FIRESPOL

Partner organisation: Extremadura Energy Agency (AGENEX)

Other partner organisations involved (if relevant): DG Industry, Energy and Mines. Regional Ministry for Ecological Transition and Sustainability.. Extremadura Regional Government

Country: Spain

NUTS2 region: Extremadura

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This action plan has been design by Extremadura Energy Agency (AGENEX). The foreseen actions in it will be carried out with the coordination of the Directorate General for Industry, Energy and Mines of Junta de Extremadura.

Action Plan FIRESOL – Extremadura Energy Agency

FIRESOL seeks to boost regionally-specialized and decentralized Renewable Energy Private Investment, by introducing improvements in the management of OPs which will break the financial barriers currently stopping the investment of the RES sector.

Each FIRESOL partner has developed their own Action Plan, a document providing details on how the lessons learnt from the cooperation will be implemented, in order to improve the policy instrument addressed within the region. This document will specify the nature of the actions to be implemented, their timeframe, the stakeholders involved, the costs and the funding sources.

In particular, the objective of FIRESOL project's action plan is to improve the policy instrument addressed by boosting RES through the use of innovative FIs.

In the case of Extremadura, the national and regional regulatory framework has not recently been as favourable for the implementation of renewable energies as it used to be. Grants and feed-in-tariff incentives are now far behind. However, private financing schemes such as ESCOs, renting, PPAs and crowdfunding contracts have allowed approaching and promoting renewable energies in our region, which presents favourable weather conditions and land resources for RES implementation.

Nevertheless, more promotion and facilities should be given to this type of financial instruments, and new measures should be implemented to promote public-private partnerships, allowing the RES sector in the region to achieve European targets through Extremadura's Action Plan.

POLICY CONTEXT

The Action Plan aims to impact:

- ☒ Investment for Growth and Jobs programme
- ☐ European Territorial Cooperation programme
- ☒ Other regional development policy instrument

Name of the policy instrument addressed:

- **ROP FEDER 2014-2010 Extremadura**

PI.4.1 “Renewable Energy Sources production and distribution promotion”

Investment priority PI. 4.1. has as sole specific objective OE 4.1.2 “Increase the share and coverage of RE in thermal uses”, although the investment priority also foresees the implementation of actions that promote the production of RE (including solar PV).

This PI 4.1. has 3 typologies of actions: Biomass Thermal Energy, Industrial Biogas production and other RES (PV, Solar Thermal, hybrid production and geothermal installations).

- **E4PAREX, Energy Efficiency Strategy for Public Buildings of Extremadura Regional Government (2018-2030).**

The strategy was launched in November 2018 and was itself the product of the implementation of various EU projects, developed with the cooperation of the regional government and AGENEX. E4PAREX has been developed and planned, having mapped already the public building stock of the Regional Government of Extremadura (concrete buildings, their uses, surface, users, year of construction, use, current need of rehabilitation etc.) and having estimated investments and savings.

The Energy Efficiency Strategy in Public Buildings of the Regional Administration of Extremadura 2018-2030 (E4PAREX 2018-2030) is incorporated, as a measure of Extremadura Regional Government against climate change and reinforces the territorial challenges reflected in the Framework of the Green and Circular Economy Strategy 2030 (EEVC) of Extremadura and the European directives.

The Strategy, therefore aims to reduce CO2 emissions from Real Estate Public, contribute to regional environmental accounts and raise awareness and improve human and institutional capacity in relation to climate change mitigation of Extremadura, not forgetting its interrelation with the UN Sustainable Development Goals.

The general objective of the E4PAREX 2018-2030, is framed in the principles and objectives of the Green and Circular Economy Strategy and is specified as:

“The identification and enhancement of actions in the buildings of the regional administration to drive the transition to a green and circular economy that is based on the use of endogenous resources, promoting the generation of employment of quality within the framework of a new diversified and sustainable productive model, in development of the exemplary role in energy and building quality”.

To achieve these strategic objectives, the E4PAREX 2018-2030 incorporates 59 actions grouped into 7 different axes of action that develop it among which is the priority of the use of endogenous renewable resources in energy generation (Renewable Energy Sources axis) with an estimated investment of 25M€.

Main stakeholders involved:

- **Extremadura Energy Agency**

The Energy Agency of Extremadura (AGENEX) is a public entity, set up by regional and local entities of governmental and training nature, created in 2001 in order to promote the energy source diversification and the energy efficiency in Extremadura.

Its main mission is to support local and regional policy makers in the definition of strategies and directives allowing to achieving Regional, National and European targets in the field of energy. AGENEX seeks to boost the implementation of green technologies (both Renewable Energy Sources and Energy Efficiency) in the day to day of citizens, by promoting RTD projects, funding sectorial initiatives, supporting project promoters, etc. One important mission of AGENEX is the awareness-raising of general public, customers, users and decision makers of the entire society, in all issues concerning energy change, sustainable energy, sustainable energy and climate change mitigation. Furthermore AGENEX also cooperates in projects that directly involve the development of Innovative Financial Instruments in the private residential sector, as in the case of HOUSEENVEST (H2020, "Energy Efficiency Investments in multifamily houses"), Rehabilita (Interreg SUDOE, FI in energy refurbishment), Finerpol (Interreg Europe, policies aimed at the creation of Financial Instruments supported by European Funds combined with private financial sources) and INNOVATE (H2020, replicate integration model operators and third party financing schemes, ESCO and EPCs).

- **Regional Ministry for Ecological Transition and Sustainability. DG Industry, Energy and Mines. Extremadura Regional Government.**

Junta de Extremadura is the institution responsible for organizing the government of the region of Extremadura, Spain.

At regional level, the highest-ranking organism in policy making and regional planning in the field of energy improvement and planning is the DG de Industria, Energía y Minas (DGE – DG for Industry, Energy and Mines). The entity is developing right now a significant experience in the field of energy efficiency promotion and innovative financing in Renewable Energy Sources.

DGE has direct of competencies in industrial promotion, energy generation, energy distribution, industrial management and mines. More precisely:

- A) Energy planning, in accordance with the Spanish national energy regime.
- B) The promotion of renewable energies.
- C) Betterment of Energy Savings and Efficiency both generation and consumption.
- D) The management and control of the security in the industrial, mining and energy sectors.
- E) The registration of companies in these sectors, as well as the inspection and sanctioning procedure of such activities.
- F) Control of the quality of the electricity supply.

Besides, DGE is now running an internal grant and incentives programme with the aim of fostering energy efficiency in various sectors in the region of Extremadura.

DETAILS OF THE ACTIONS ENVISAGED

After the interregional exchange of experiences and the regional self-assessment elaborated during the Phase 1 of the project, AGENEX has identified that there is a huge opportunity in the promotion of the use of innovative FIs to implement RES in the public sector as well as in the private field.

Therefore, there have been two main actions identified to boost the RES implementation through innovative financing schemes:

1. Implementation of Renewable Energy Sources in public buildings in Extremadura region through the use of financial instruments enabling the Regional Government the execution of the E4PAREX Strategy (2018-2030) using improved ROP policy instruments.
2. Assessment on the Self-Consumption board to raise awareness of the benefits of the new financing schemes for Renewable Energy Sources projects in the private sector using improved ROP policy instruments.

According to Programme Manual, section 4.3.1., the proposed improvement of the policy instrument is envisaged by type of change 1 and 2 for Action 1, where not only there will be implementation of new projects but, also a change in the governance is needed to be able to use new financing schemes, such as ESCOs or renting, by the Regional Government, while only type 1 will be achieved with action 2.

All these improvements and new approaches have been defined thanks to the cooperation and to the lessons learnt during the exchange of experiences as we will explain in the background section of every action.

ACTION 1 - Implementation of Renewable Energy Sources in public buildings in Extremadura region through the use of financial instruments enabling the Regional Government the execution of the E4PAREX Strategy (2018-2030) using improved ROP policy instruments

BACKGROUND

During the FIRESPOL exchange of experiences, AGENEX has learnt that some countries like Germany, Croatia and Poland are implementing RES in public buildings through to the use of private innovative financing schemes such as ESCOs. Thanks to these examples, AGENEX has identified that there is a huge opportunity to implement the E4PAREX, Energy Efficiency Strategy for Public Buildings of Extremadura Regional Government (2018-2030), as one of the priority axis of the strategy is the incorporation of Renewable Energy Sources in public buildings, which required a high investment that could be funded through such FIs. In this process, the involvement of the stakeholders and RG in project activities have been crucial to learn about the benefits of these innovative financial schemes and their potential of replicability in our region to implement the Strategy and its viability.

Several projects financed by ESCO formula were commented during the interregional meetings. After discussion with partners and stakeholders, it seems that this financing mechanism could be replicated in Extremadura Region boosting the implementation of RES in public buildings, enabling the implementation of the E4PAREX strategy by sorting out the financing of these projects. The examples shared during the project learning process were mainly public, as the ESCO project in Public-Private Partnership formula that allowed the modernisation of a municipal boiler plant for renewable energy in Poland. In this example, shared during the IE2 in Poland, the lack of the municipality's own resources forced the municipality to look for private sources to finance the necessary investments and change the form of urban management heating plant. The Wiesbaden Police Academy is another key practice inspiring AGENEX as the Energy Service Saving (ESCO) was used to finance the implementation of an energy power system in the public building. So, Public-Private partnership could be the answer to implement the strategy.

Another key example inspiring this action is the GP visited in Lubelskie during the IE2 in Poland, where a Cooperative of Municipalities implemented a shared PV plant to generate energy for the area as this could be a great inspiration to bundling public buildings for the implementation of RES in Extremadura Region. Different scale of bundling examples were presented by FIRESPOL Croatian partner where a pilot project of biomass was implemented in public building learning that district heating at local level could be a great opportunity for implementing RES in public buildings of the same area.

Other options including public-private partnership are being considered, as the combination of different financial instruments and funds that enabled the boiler house reconstruction project shared by the Latvian partners. This practices is a great example of combination of funds, concretely, of the combination of different innovative financial instruments, loans and own funds.

Last but not least, we are considering the use of the PPAs for financing RES in some specific public buildings, like educational buildings, due to the intermittent use of the building. As these buildings are not usually used during summer season, this financing model could allow the distribution of the energy generated to other buildings/general grid during the summer break. Examples of PPAs applied to private large scale RES were shared by us and have inspired other partners. However, we have also been inspired by FIRESPOL project partners during the good practices workshop as, after partners' comments, we realised about the possibility of applying this financing product to the public sector.

ACTION

The first action is focused on the implementation of RES in public buildings, enhancing the use of new financing schemes that will enable the Regional Government to implement the E4PAREX, Energy Efficiency Strategy for Public Buildings of Extremadura Regional Government (2018-2030).

The Regional Government has an organizational structure to launch the E4PAREX and the planning phase has been completed, but two barriers have been encountered to allow its implementation. The first one is financial, that could be solved involving ESCOs and private funding entities, as well as analysing possible public funds; and the second one is technical, as the government lacks the specialized staff needed for this implementation. This issue could be solved with the support of an ELENA grant for technical assistance, solution that was already mentioned in the E4PAREX Strategy as a possible financial source to undertake its implementation.

Although major progress was made, this type of contracts involving ESCOs in buildings could not have been implemented in the last years due to two main factors: the imputation of debt to the regional administration, and the lack of knowledge of the technical, legal and management staff that work in the public administration. Both issues have been solved with the change in regulation, and projects as FIRESPOL are increasing capacity of the public sector to break these barriers.

The target of this action plan is the integration of renewable energy sources in public buildings. After a preliminary study of the regional administration's building stock, it can be concluded that hospitals are responsible for the highest energy consumption, about 40% of the stock's total, concentrated in only 12 building complexes. They have a huge potential for energy savings but, in order to trigger these savings, high investments are needed, and the regional government cannot face them alone. Additionally, these buildings require good energy management services that are currently not available, the services provided are focused on maintenance only; so they are an interesting model to get ESCOs involved, and this is the reason why this action plan will focus on these buildings and this financing scheme.

Activities:

1.1. Identification of the Financial Instruments / Feasibility Study

This study has been elaborated during FIRESPOL project Phase 1. First, the document compiled all lessons learnt from the interregional learning, identifying those good practices with more potential of replicability in our region. Then, a market study of the FIs available in the region is undertaken, comparing their conditions and opportunities of implementation. The document concludes with a feasibility study of selected FIs applied to real study cases.

1.2. Meetings with policy makers / managing authorities

This task has also started on Phase 1 with periodic meetings with the Regional Government and will carry on Phase 2.

1.3. Presentation of the FI opportunities

The results of the Feasibility Study and the main steps established in the Action Plan will be shared with the main stakeholders in order to present the FI opportunities and start with the definition of the support strategy.

1.4. Definition of a support strategy/roadmap

The support strategy will contemplate the following activities:

- i. Identification of the target buildings, from among the regional building stock, that are a priority; based on the conclusions drawn from the E4PAREX strategy.
- ii. Conducting of energy audits in those public buildings that are subject to implement EPC contracts through ESCOs. These buildings are defined as higher consumers, with high potential of savings and/or in need of immediate retrofit works.
- iii. Development of technical studies to define the configuration and optimal capacity of renewable energy implementation; as well as other possible measures (e.g. facades shading or ventilation)
- iv. Selection of public buildings for implementation, founded on the previous energy audits and technical studies, as well as the feasibility studies.
- v. Preparation of tendering procedures, designing comprehensive bids for each building or group of buildings.
- vi. Mobilization of ESCOs and private financing entities to encourage them to participate and disseminate the public procurement process, resulting in job creation and growth in the region.
- vii. Verification and follow-up of the guaranteed energy savings.

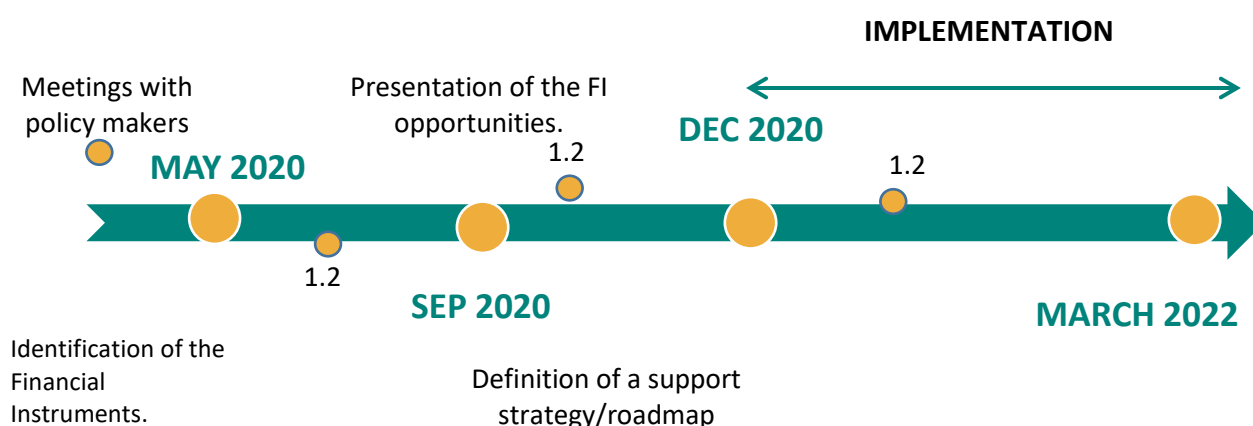
1.5. Implementation

Once the strategy has been validated, AGENEX will support the Regional Government in its implementation.

PLAYERS INVOLVED

The main players of this action are AGENEX and DG Industry, Energy and Mines and DGyC, Regional Ministry for Health and Social Services of Extremadura as they are the entities involved in the implementation of the E4PAREX.

TIMEFRAME



COSTS

The costs associated to this action will be staff cost for the technical support that will be provided by AGENEX during the definition of the strategy and its implementation. It is estimated circa 300.000€ for a year of implementation.

The amount of private funding mobilized through the implementation of RES projects in public building during the first year will be 5M€.

FUNDING SOURCES

In the case of the technical support that will be provided by AGENEX, Extremadura Energy Agency is analysing different funding sources, as a PDA or an ELENA.

Own resources from the regional general budget and support from its own administration's staff.

ERDF Regional Operational Program, through the budget allocated under the Thematic Objective TO4 "Promote the transition to a low carbon economy in all sectors" and the Specific Objective 4.3.1 "Improve energy efficiency and reduce emissions in buildings, public infrastructure and public services". It is developed through a package of measures to promote energy savings and energy efficiency actions in the Public Administration infrastructure, allowing it to achieve a high energy rating or increase the existing one.

ACTION 2 –Political support scheme to financial entities financing Renewable Energy Sources projects through FIs in the private sector using improved ROP policy instruments

BACKGROUND

Although the use of financing schemes for implementation of large RES project in the private sector is widespread in almost every partner region, small promoters are still depending on the traditional grant system to install RES for self-consumption. In some countries like Ireland, some feed-in-tariff incentives are available to promote these projects. However, the regulation in Spain changed a few years ago and only funding lines are available. Stakeholders have agreed that the current system to apply for the grant is inefficient, with a long administrative process which is paralysing this sector with a huge potential. In this sense, during the interregional exchange we have involved representatives from Extremadura Energy Cluster and they have been inspired by so many examples of private funding as ESCO, renting, crowdfunding, PPAs with high potential of replicability in our region. This needs to be boosted by the MA and public administration to promote the implementation of RES.

Latvia shared some great examples of blending during the Interregional Event 6 in Riga, where a combination of a loan with a grant can increase the leverage. ESCOs examples already mentioned in the previous action could also be used to finance private implementation of RES.

Cooperatives are also a great example as the Energy Cluster Dolina Zielawy visited during the Interregional Event 2 in Poland, which could also be applied to the private sector. The potential of transferability of this practice could be the creation of a cluster/community of private promoters to implement RES projects in Extremadura Region. Another community example that has inspired this action has been Community Power, a community-based Virtual Power Plant (cVPP) in Ireland, which is a partnership of community energy groups. It grew out of Ireland's first community owned wind farm, Templeberry Wind Farm, and is now working with Irish communities to develop more renewable energy projects owned by local communities and citizens.

So, the main learning from FIRESPOL project is the wide variety of option to finance RES, many of the examples already existing in our region but, due to the lack of knowledge of this products and support from the RG, are not been used as they should. Our task here has been the sharing of the good practices with our main stakeholders and during the meetings of the Self-Consumption board to raise awareness about the benefits of the new financing schemes for RES projects in the private sector, linking MA with private financing entities enabling the promotion of FIs.

ACTION

As mentioned before, the objective of this action is the creation of a political support scheme to private financing entities financing RES. The idea is to promote the implementation of RES using private financial instruments thanks to the support of the Regional Government to private financing institutions. A first review meeting between the RG and the private financing entities will be organised in order to establish a relationship among these key institutions in the promotion of the FIs for RES. From this point, RG will share with them the necessity of promoting the implementation of these projects, encouraging private entities to offer interesting products to boost this sector. RG will identify private entities and products available in the market giving them recognition through Green Energy Credits to support these organizations in the implementation of RES

The final result of this action will be the implementation of RES through the use of private financing schemes.

Activities:

2.1 Assessment on the Self-Consumption board meetings

The Self-consumption board meetings are held periodically each 2-3 months and Extremadura Energy Agency, as a member of the board, will participate in them raising-awareness about the benefits of these innovative products.

2.2 Meetings with policy makers / managing authorities / Awareness-raising of the benefits of innovative financing schemes to boost RES projects

Bilateral meetings with the RG will be organized to support them in the designing of the strategy and supporting its implementation.

2.3. Peer review meeting between MA and financial entities

Extremadura Energy Agency will arrange a meeting between MA and financial entities to find an agreement in the implementation of RES in the region.

2.4 Identification of the Financing Entities offering FIs for RES/ Green Energy Credits assigned by RG

Regional Government will give recognition, Green Energy Credits, to the financial entities which have FIs for RES available as a guarantee from the RG to the small promoters investing.

2.5 Definition and implementation of a support strategy

Extremadura Energy Agency will carry on supporting MA in the Self-Consumption Board assessing in the promotion of RES in the region, always betting for FIs. The final objective of this action will be the movement from the traditional grant system towards innovative financial instruments, with a public-private partnership that will increase the leverage factor of ERDF funds.

2.6 Implementation of RES projects in the private sector through FIs The implementation of new RES projects is the main expected outcome of this action. To achieve this, the support scheme established by the MA will encourage the use of FI to allow the implementation of new projects in the private sector. Firstly, financing entities will be backed up by the MA providing funding and making green financial products available. This will provide the financing entities with a recognition label, "Green Credits" that will give private promoters a guarantee to invest in RES.

This support strategy will be reviewed periodically by the Self-Consumption Board to ensure that it is working as expected, assessing the final outcomes and the link among MA, private promoters (represented by Extremadura Energy Cluster) and private financing entities.

Extremadura Energy Agency will be responsible for monitoring the entire process and for analysing the number of new RES projects that have been developed, as this information must be communicated to the RG (DG Industry, Energy and Mines) for legalisation.

PLAYERS INVOLVED

The regional Board for Self-Consumption in Extremadura that is composed by both public and private key actors in the field: AGENEX, DG for Industry, Energy and Mines (JuntaEx), Extremadura Energy Cluster and private promoters or financing entities, among others.

TIMEFRAME

2.1	•Trimestral meetings (1 st meeting in Nov 2019, 2 nd meeting Jan 2020, next to be defined)
2.2	•Frequent meetings with MA.
2.3	•September 2020
2.4	•September 2020
2.5	•Sept 2020 - Dec 2020
2.6	•Sept 2020 - Dec 2021

COSTS

3000€ (1.2 person/month approx. from AGENEX)

FUNDING SOURCES

Extremadura Energy Agency (AGENEX)

The partner responsible for drafting the FIRESPOL regional action plan for Extremadura Region

Signature: Mr. Cosme Segador, Director
Director of AGENEX- Extremadura Energy Agency



Managing Authority of the Regional Operational Program of Extremadura 2014-2020 acknowledging and validating the current action plan

Signature: Mr. Samuel Ruiz Fernández, Director
Directorate General for Industry, Energy and Mines –
Regional Government of Extremadura