



**SUPPORT**  
Interreg Europe



**ENERGIEAGENTUR**  
Rheinland-Pfalz



European Union  
European Regional  
Development Fund



Regional Action Plan  
Rhineland-Palatinate  
**SUPPORT**

Energy Agency Rhineland-Palatinate  
**- SUMMARY -**

PHASE 1 “Interregional learning”  
a) Exchange of experience - Action a.3)  
(Semester4) and Action a.1) (Semester  
5)

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## List of abbreviations and Definitions

ALEA	Alba Local Energy Agency
ANERGO	Alba Regional Energy Observatory
BISKO	Local authority balancing standard
EARLP	Energy Agency Rhineland-Palatinate
EMIS	Energy Management Information System
EPC	Energy Performance Contracting
ERDF	European Regional Development Fund
ESS	Energy Agency for South East Sweden (project partner)
EU	European Union
GHG	Greenhouse Gas
IRENA	Istrian Regional Energy Agency (project partner)
MUEEF	Rhineland-Palatinate Ministry of Environment, Energie, Food and Forestry
NKI	Nationale Klimaschutzinitiative des Bundesumweltministeriums (German National Climate Initiative)
RBA	Regional Background Analysis
RLP	Rhineland-Palatinate
SEAP	Strategic Energy Action Plan
SMiV	System for Monitoring and Verification of energy savings

## 1 Introduction

### 1.1 General Information

**Project:** support local governments in low carbon strategies (SUPPORT)

**Partner organisation:** PP 11 Energy Agency Rhineland-Palatinate

**Other partner organisations involved** (if relevant): no

**Country:** Germany, DE

**NUTS2 region:** NUTS 1 Rhineland-Palatinate

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### 1.2 Political 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:** Operational Program 2014-2020 ERDF Rhineland Palatinate: PA 2, IP 3d, Specific Target 3; PA 3, IP 4b IP 4e IP 4f

On the side of the ERDF funds it became obvious that there are many national funding programs supporting energy refurbishment measures. Therefore the ERDF fund in RLP focuses on innovative measures in this field. The regional ERDF fund also supports the establishment of new advisory/information services as well as increasing the regional municipal information sharing. This means that projects can be supported which focus on the municipal capacity building to enable them to implement energy efficiency measures.

## 2 Activity 1: Municipal greenhouse gas balancing and regional climate protection portals

### 2.1 Use of the acquired knowledge from SUPPORT

A problem in RLP are inconsistent or missing data for the compilation of energy balances and above all the updating of already existing energy balances, which were created within the framework of the compilation of local energy and climate protection concepts. The information is hardly accessible to the public.

ALEA had similar problems and developed ANERGO, an Energy Observatory, to solve them. They presented this tool as best practice to the SUPPORT project partnership in the context

of the regional background analysis 2017. Altogether the following aspects of ANERGO are in particular very interesting for Rhineland-Palatinate:

1. Facilitate access of local authorities to energy data for better implementation and monitoring of Sustainable Energy Action Plans (SEAPs)
2. Encouraging public participation in the process of implementing and monitoring of SEAPs
3. Support the establishment and implementation of SEAPs (energy and climate protection concepts) with a uniform accounting system

About the main objectives (1 + 2): that is exactly what made us be interested in ANERGO, since it deals with the challenges in RLP. Above all, it is important that the local strategy can be updated and thus monitored in order to implement it.

Also ANERGO has features (e.g. web platform) to encourage public participation in the implementation of concepts. In Alba Iulia an online platform for information and participation (ANERGO) was developed. Our idea of regional climate protection portals serves this aspect, too. We were therefore able to benefit from their experiences.

We already have a local district which operates a climate protection portal for the participation of its citizens and the Energy Atlas, a tool who gives an overview on the different regional developments in the energy transition in RLP. Unfortunately the data can't be used by every municipality to build up a local energy balance. The available local data is not uniform and not detailed enough.

Therefore, we want to take ANERGO's experiences with regional approaches into account in our project and also address the needs and structures in RLP. This means that we want to introduce a uniform system and a uniform tool for RLP. A collective presentation of the individual balance sheet results in the Energy Atlas will be introduced. The Romanian initiative showed us that the idea of introducing a uniform accounting system is very helpful for all involved partners.

First of all, ANERGO has partnership agreements of municipalities and energy data providers to facilitate the exchange of energy data. We are planning to conclude user agreements with the participating municipalities and regional authorities to use a software for monitoring municipal climate protection. Various data is stored there, data of the energy system transformation monitoring (Energy Atlas) should be included, too. Municipalities should also have the possibility to extend the dataset by adding data of energy supply companies and grid operators. The municipalities will be asked whether we can retrieve and publish the data.

Second, ANERGO produces aggregated reports at local/county level (charts, diagrams on energy consumption and GHG emissions) for different consumer sectors (e.g. public lighting, municipal buildings). Our local climate protection portal only offers reports for the different sectors (e.g. households, economy, traffic etc.). The exchange with the Romanian project partners inspired us to offer more detailed reports: e.g. detailed data on the emissions of the traffic-sector with regard to bus, car, train or on the emissions of the municipality-sector with regard to lighting, buildings etc.

Concerning the public participation platform we learned that the interactivity of the platform in Romania is limited: The platform will contain cases of regional best practices from the entire Centru Development Region. Each best practice on the platform offers contact information and links so the target audience can get in touch with them. In addition to that, each best practice will have a contact box, so the users can submit their questions/messages. A questions and answers (Q&A) section will be added to each best practice, including the relevant questions received from the audience, among others. ALEA has plans to further develop the possibilities of participation at a later time (like voting, page chat etc.). We took this into account and plan to offer possibilities such as commenting, voting and sharing the information on social media.

## 2.2 Description of the measure

We used the experiences of ANERGO to further develop our project in RLP. The name of the project is "KomBiReK - Municipal greenhouse gas balancing and regional climate protection portals". The project's main focus is to improve the quality of municipal energy and climate protection concepts. To improve the data availability for local authorities and the ability to update local balance sheets is an important step in this context. This makes it possible to improve the level of implementation of these municipal policies.

KomBiReK consists of 2 parts/work packages:

1. Uniform Balancing system/methodology and RLP license for a balancing software
2. White Label Modular regional climate protection portal

We have selected a pilot region in RLP to develop and implement the system according to regional requirements. The pilot region provides political commitment and is structurally comparable to the "Alba County" region. A future state-wide roll out (RLP) is aimed at.

ALEA has encountered the following problems during the introduction of ANERGO:

- Lack of trained staff within the staff of local authorities skilled in energy efficiency and municipal energy consumption management; Training and coaching of staff on how to use and maintain their dedicated observatory energy data bases

- Lack of financial resources for hardware infrastructure: sensors, automatic data acquisition systems and real-time transmission of energy consumption data
- The real involvement of the main actors (public authorities and energy data providers) is crucial for successful implementation
- External financial resources needed to establish and operate ANERGO

This was addressed in the development of the implementation of KomBiReK and the following steps were and are being taken:

- Involvement of the main actors
- Tool is made available to municipalities free of charge (licenses are issued). Balance sheets are prepared free of charge for pilot municipalities.
- Training and coaching for Tool is offered to the municipalities.

It is expected that strategic municipal climate protection and the preparation of balance sheets will be stimulated, even in less financially strong municipalities, which can lead to a reduction in the burden on municipal budgets and an increase in regional added value and future security through the implementation of energy-efficient measures.

## 2.3 Actors involved

Who	What
Project implementer, affiliated partners	
<b>EARLP</b>	<ul style="list-style-type: none"> <li>• Project management and communication</li> <li>• Use of EARLP structures: e.g. Energy Atlas, regional offices</li> <li>• Provision of the White label including modules</li> </ul>
<b>University Koblenz-Landau</b>	<ul style="list-style-type: none"> <li>• Conception and technical implementation of the White label including the modules in coordination with EARLP</li> <li>• Preparing balance sheets for pilot municipalities</li> </ul>
Target group, Stakeholder	
<b>Municipalities in pilot region</b>	<ul style="list-style-type: none"> <li>• Get for free: balancing tools, training, data service (Energy Atlas)</li> <li>• The University of Koblenz-Landau prepares the balance sheets for them</li> <li>• Each of them is given its own climate protection portal</li> </ul>
<b>Other municipalities in RLP</b>	<ul style="list-style-type: none"> <li>• Free provision: balancing tools, training, data service (Energy Atlas)</li> <li>• Licenses for climate protection portals (White label) available from 2021 onwards</li> <li>• Preparation of balance sheets, calculation of potentials and scenarios, etc. at their own expense</li> </ul>
<b>Citizens</b>	<ul style="list-style-type: none"> <li>• In municipalities with regional climate protection portals</li> </ul>
Service providers	

## 2.4 Timeframe and work plan

### 2018

- Cooperation agreement between EARLP and university of Koblenz-Landau
- Administrative districts in the pilot region sign letters of intent to participate
- Preparation and submission of the project application for ERDF funding for the financing
- Provisional start: Tender for the GHG balancing tool and training is launched.

### 2019

- Grant notification for EARLP and University Koblenz-Landau
- EARLP awards the contract for the balancing tool
- Start of awarding licenses of the THG tool to municipalities throughout Rhineland-Palatinate
- Promotion of KomBiReK (license awarding of GHG-Tool, trainings, data service)
- Call for tenders, award of contract for „Programming climate protection portal“ by the University Koblenz-Landau and start of the conception
- Start of the preparation of balance sheets in the pilot region

### 2020

- Inclusion of initial balance sheet results in the Energy Atlas
- Finalization of the White label for regional climate protection portals in Rhineland-Palatinate
- Start of the conception of the roll out in Rhineland-Palatinate

### From 2021

Opening the White label to other municipalities outside the pilot region

## 2.5 Budget: Costs und Financing

A budget of approximately 1,207,000 euros is needed. The action is financed by subsidies from the Rhineland-Palatinate ERDF program: 550,400 euros are eligible according to ERDF specifications. The rest comes from the State and from own funds (EARLP, municipalities).

**The action contributes to the ERDF program Rhineland-Palatinate.**

## 3 Activity 2: Spreading Contracting in Rhineland-Palatinate

### 3.1 Use of the acquired knowledge from SUPPORT

In RLP energy saving contracting is quasi non-existent. The EARLP is very interested in winning over local authorities to the subject of contracting in order to help them finance energy efficiency measures in their properties and thus implement their energy and climate protection concepts. Therefore, the best practice "Full scale EPC in the municipality of Kalmar", which was presented by the Energy Agency Southeast Sweden (ESS), contains interesting starting points for us. ESS presented the example of Kalmar as part of its regional background analysis and at the first interregional seminar in Rovinj (12-14 September 2017). The Managing Director of EARLP and a coordinator at the MUEEF, who is responsible for municipal issues, took part in the staff exchange to Kalmar. From 17 to 19 April 2018 they

could discuss with the employees of ESS, Kalmar's municipal managers and the contractor (Caverion Sverige AB) on site. The following aspects are particularly interesting for us and we see potential for better spreading the subject of contracting in RLP:

- Staging the contract in 3 phases (data collection, implementation, monitoring)
- Bundling of all municipal properties into one global project, not only the same type of buildings.
- Argumentation to convince municipality: long term saving of energy costs through investments.
- Calculating the costs of the energetic measures in Kalmar, the concrete advantages of contracting could be demonstrated on the own example.
- A long planning period of 20 years during which the savings must be demonstrated.
- Experienced Contractor
- The boundary conditions are comparable: number of inhabitants, years of construction of the buildings (60s/70s), region (rural character with urban centres)

We are particularly interested in the drafting of contracts and here we see potential to reduce the complexity of contracting and to convince local authorities to use contracting.

We discussed these findings with municipal actors during the regional two-day SUPPORT intensive workshop on 22<sup>nd</sup>/23<sup>rd</sup> November. The aim was to find out how open municipalities in RLP are to contracting approaches and which actions have to be taken to achieve the implementation of the Swedish approach in RLP. It turned out that the municipal stakeholders recognized the potential, but are still hesitant when it comes to their own properties. The idea was to launch an extensive contracting project in a pilot municipality to demonstrate the feasibility of the project in RLP and to develop consulting and guidance material based on the experience gained.

### **3.2 Description of the measure**

Our goal with this action inspired by the example of Kalmar is: to make municipalities in RLP use contracting at all, especially energy saving contracting and this on a larger scale, meaning with several properties and with a longer term. In order to achieve this in RLP, we first want to tackle a larger contracting project in a pilot municipality (full scale probably not achievable). In order to better spread the topic throughout RLP, experience will be used to develop specific regionally coordinated advisory and guidance services. There are two work packages:

#### **1. Implementation of a larger contracting project in a pilot community:**

Together with a municipality in RLP, we will select buildings from its portfolio for energy-saving contracting and advise the municipality on the tendering procedure for a contractor.

We will check on this particular case whether the "3 Phase Model" from Sweden is applicable in reality in RLP. Furthermore, the EARLP will support the municipality in the negotiations with the contractor and the contract design in order to achieve cost efficiency and desired energy saving results. When selecting the pilot municipality we will take into account experiences from Sweden. The Swedish partner described challenges and requirements that had to be met to realize the contracting project. In Sweden, an overall review of the real estate portfolio was required. In RLP we will work together with municipalities that have already implemented an energy management system in their municipal building stock and have written an energy report. Only these municipalities have the necessary knowledge and structure. This is a precondition to secure the development of a bigger EPC project in the next 2 years and actually transfer aspects from the Swedish Best-Practice.

## 2. Improvement of the consulting and support offer for "contracting" in RLP

The pilot municipality is intended to demonstrate the potential of contracting for energy efficiency for municipalities in RLP. In order to convince other municipalities to use contracting as a financing option, consulting and guidance material will be developed on the basis of this experience. At the same time, personal consultation by an EARLP employee is offered to municipalities. The findings will also be used to negotiate with important stakeholders. This is particularly important in order to achieve longer terms for contracting projects, so that energy efficiency measures with long payback periods can also be implemented:

- Local regulatory authority for municipalities: approves contracting maturities of max. 10-15 years.
- Contractors: Longer terms and "not only cherry picking" are aimed at.

The interregional exchange with ESS has taught us "to think big" and EARLP wants to implement the described action based on the Swedish experience.

### 3.3 Actors involved

Who	What
Project management	
<b>EARLP</b>	<ul style="list-style-type: none"> <li>• Identification and support of the pilot community</li> <li>• Development of support material for tenders and contracts</li> </ul>
Target group, Stakeholder	
<b>Pilot municipality</b>	<ul style="list-style-type: none"> <li>• Receive free of charge support from EARLP throughout the process</li> <li>• Tendering, negotiating and concluding contracting contract</li> <li>• Profit from the energetic measures by saving energy costs</li> </ul>

<b>Users of the buildings</b>	<ul style="list-style-type: none"> <li>Profit from the energetic measures, e.g. improved indoor climate for better working environment</li> </ul>
<b>Other municipalities in RLP</b>	<ul style="list-style-type: none"> <li>Free provision: support material for calls for tenders and contracts</li> <li>Receive improved advisory services from EARLP</li> </ul>
<b>Service provider</b>	
<b>Energy service companies</b>	<ul style="list-style-type: none"> <li>Tender contractor who is ready to perform a large EPC project</li> <li>Negotiations on longer maturities and bundlings</li> </ul>
<b>Superordinate decision makers</b>	
<b>Local regulatory authority</b>	<ul style="list-style-type: none"> <li>EARLP negotiates over longer-term contracting maturities</li> <li>EARLP provides information about contracting projects: potentials for municipal investment and long term cost savings</li> </ul>

### 3.4 Timeframe and work plan

<b>2019</b>
<ul style="list-style-type: none"> <li>Preparation of an ERDF project application in order to be able to finance the intensive consultation and preparation of the information and guidance material</li> <li>Find a pilot community &amp; conclude a cooperation agreement with the mayor</li> <li>Capture the situation in the pilot municipality on the basis of the energy report</li> <li>EARLP and municipalities jointly select the buildings for the EPC project in order to achieve a useful bundling</li> </ul>
<b>2020</b>
<ul style="list-style-type: none"> <li>Prepare tendering of the contractor</li> <li>Check whether the “3 phase model” from Sweden can be applied and, if necessary, adapt it to the legal framework.</li> <li>Together with the municipality: viewing the offers and prepare negotiations with contractors</li> <li>Negotiated contract will be presented to the local council for approval</li> <li>Contractor begins implementing first measures in pilot municipality</li> </ul>
<b>2021</b>
<ul style="list-style-type: none"> <li>Review the tender, negotiation and contract and exchange experience with pilot municipalities to make any necessary adjustments of consultancy service</li> <li>Conducting discussions with local regulatory authority for municipalities on the legal framework for contracting and pointing out the potentials (long-term energy cost reduction) for (financially weak) local authorities.</li> </ul>

### 3.5 Budget: Costs and Financing

The EARLP needs a budget of approx. 370,000 euros for the implementation of the action (intensive support of pilot municipality and statewide (RLP) transfer). The action is financed by subsidies from the Rhineland-Palatinate ERDF program; 185,000 euros are eligible according to ERDF specifications. The rest comes from the state and from own resources (EARLP). **The action contributes to the ERDF program Rhineland-Palatinate**

## 4 Activity 3: Comprehensive and Standardized Energy management

### 4.1 Use of the acquired knowledge from SUPPORT

In RLP we are aiming to standardize the municipal energy management, including the process of implementing it, the used software and calculating/ data proceeding methods. The Croatian lead partner (IRENA) presented us two systems from Croatia which showed us that it is possible to implement a uniform structure for municipal energy management (EMIS) and to calculate and verify energy savings according to uniform standards (SMiV). IRENA presented both systems as best practices at the first interregional seminar in Rovinj, Croatia (12.-14.09.2017). We identified EMIS as a very interesting system. The following aspects are of particular interest for the EARLP:

1. In Croatia it is a legal obligation to use the nationwide energy management system (EMIS); One part of EMIS is, that it provides a software the municipalities have to use (integrate energy data and proceeding it)
2. EMIS: Open for automatic (meter) and manual (reading data) feed-in
3. Information on energy data is collected at a centralized point and can be analysed on a regional level.

### 4.2 Description of the measure

We are aiming at transferring the aspect of a nationwide and centralized system to a comprehensive and standardized municipal energy management system in RLP. It should help small local authorities to better identify efficiency potentials in their building stock. With the learning from EMIS and SMiV we want to test how they can be convinced to implement an energy management system and to show them the added value. One challenge will be the usage of the municipal data due to data protection regulations.

We developed the following idea out of the interregional learning process: In one region in RLP a pilot project will be carried out where consumption data of different municipalities will be digitally and uniformly recorded, so to say a “little Croatia”. At the same time the experiences will be used to negotiate with the MUEEF to create legal frameworks and/or adapt the funding landscape to foster a comprehensive and standardized municipal energy management system in RLP. The action consists of two parts:

#### 1. Pilot region „little Croatia“

Opposite to Croatia in RLP there is no legal framework for a comprehensive and standardized municipal energy management, therefore we want to realize it with

municipalities in a pilot region on a voluntary basis. The EARLP will help the municipalities as a consultant and mediator.

- The pilot municipalities implement a uniform and digital data collection and energy management system. Hurdles but also push factors will be detected.
- The Municipalities will jointly tender one energy management software solution and hardware components (e.g. meters) to collect, proceed and view/publish data on the consumption of their buildings following the same methodology. To have a cost saving effect and low-maintenance they have to purchase the tool together.
- EARLP signs partnership contracts with municipalities so they provide us with their data to reach a standardized database.

The RLP region „Nationalpark Hunsrück-Hochwald“ will be the pilot region.

## 2. Improving the legal framework in RLP for municipal energy management

To implement a comprehensive and standardized energy management system all over RLP it might be necessary to make it a mandatory task for municipalities like it is in Croatia. The EARLP will intensively exchange with participating municipalities and on the same time communicate with the MUEEF (responsible for ERDF, RLP Climate Protection Law) about the proceedings and results in the pilot region, to start processes on the legislative level: creating legal framework or adapt funding programs.

### 4.3 Actors involved

Who	What
<b>Project Management</b>	
<b>EARLP</b>	<ul style="list-style-type: none"> <li>• Intermediate between municipalities and RLP institutions</li> <li>• Negotiations with MUEEF</li> <li>• In the long run: build up a data base with standardised collected and proceeded data; provide it to MUEEF</li> </ul>
<b>Target group, Stakeholder</b>	
<b>Municipalities in pilot region</b>	<ul style="list-style-type: none"> <li>• Jointly purchase and implement a uniform energy management system</li> <li>• Profit from the cost saving effects</li> </ul>
<b>Other municipalities in RLP</b>	<ul style="list-style-type: none"> <li>• Better legal framework and funding conditions</li> </ul>
<b>State of Rhineland-Palatinate</b>	
<b>MUEEF RLP</b>	<ul style="list-style-type: none"> <li>• EARLP negotiates funding conditions and recommends legal conditions</li> <li>• EARLP provides information about energy management: potentials for municipal investment and long term cost saving</li> </ul>

#### 4.4 Timeframe and work plan

##### 2019

- In pilot municipalities: check which hardware is required or which systems are already available. Does this lead to special requirements?
- Conclude a cooperation agreement with EARLP and the municipalities use the collected municipal data.
- Conclude contracts between the municipalities that they are willing to jointly procure.
- Preparation of an ERDF project application

##### 2020

- EARLP supports the municipalities in jointly tendering the necessary hardware and software.
- Joint tendering of energy management software including training for local authorities
- Set-up of the digital recording
- Evaluate the experiences and make first recommendations towards the MUEEF
- Initiate action at political level in RLP

##### 2021

- Municipalities constantly measure the energy consumption of all their buildings and constantly learn through the measurements
- Implementation process in the pilot region will be evaluated

#### 4.5 Budget: Costs and Financing

The EARLP needs a budget of approx. 275,000 euros for the implementation of the action (intensive support of pilot region and negotiations with RLP political institutions). The action is financed by subsidies from the Rhineland-Palatinate ERDF program; 137,000 euros are eligible according to ERDF specifications. The rest comes from the state and from EARLP.

**The action contributes to the ERDF program Rhineland-Palatinate**