



## STEPPING :

Energy Performance Contracts for rural municipalities

## PROJECT SHEET



### PROJECT OVERVIEW

The STEPPING project allowed testing various models of the Energy Performance Contract (EPC) that are adapted to small municipalities. The purpose of the EPC is to carry out energy renovation work, whose impact in terms of energy saving is guaranteed contractually.

The Energy and Environment Agency in Auvergne-Rhône-Alpes (AURA-EE) has developed a model that meets the needs of the Urban Community of Porte de l'Isère and its municipalities. The work focused on a perimeter of five schools, emblematic buildings of local authorities, whose renovation enhances the public heritage, while creating local activity.



### GOALS

Develop and test a model for Energy Performance Contracts to renovate buildings of rural municipalities:

- ∞ By integrating in one project buildings from different municipalities
- ∞ By working with the local market so that the companies of the territory may have the ability to respond to the market
- ∞ By finding new levers for financing
- ∞ By organising a shared portage of projects



### TARGETS

This project was aimed at territories wishing to implement energy renovation actions for their public buildings



### INVOLVED ACTORS IN THE REGION

- ∞ The pilot territory: the Urban Community of Porte de l'Isère
- ∞ ADEME (French public Agency for Environment and Energy Management)
- ∞ The Auvergne-Rhône-Alpes Region
- ∞ AURA-EE (Energy and Environment Agency in Auvergne-Rhône-Alpes)
- ∞ EPC actors in Auvergne-Rhône-Alpes: FFB (French Building Federation), FEDENE (Federation of Energy Environment Services), Bank of Territories, Crédit Agricole, SIEL (Local Energy Distribution Service Operator of Loire), SDED (Public Energy Service in the Drôme), Annemasse, Cerema (Center for Studies and Expertise on Risks, the Environment, Mobility and Development)

### BUDGET



**1 940 000 €**

out of which € 1 650 000 from the ERDF, allocated between 9 European partners

### DURATION



**March 2016  
October 2019**

### PARTNERS

STEPPING involved 9 partners from 7 European regions located in the Mediterranean area. In France, the project was piloted by AURA-EE and co-financed by the European Regional Development Fund, the Auvergne-Rhône-Alpes Region and ADEME.

# ACTIVITIES CARRIED OUT



## ▶ Integrating in one projet buildings from different municipalities

The CAPI (Urban Community of Porte de l'Isère) volunteered to be a test territory for the project in France. It defined an Energy Master Plan for the management and renovation of its heritage. In the context of a partnership with the Bank of Territories, it updated this scheme in the short and medium term and studied the different legal solutions and financial arrangements to implement this plan. It aims to work with its 22 member municipalities, in a spirit of pooling skills, in order to provide them with project engineering and financial engineering capacity, which they can not access on their own.

With the STEPPING project, the CAPI tested **a bundled EPC for schools from five municipalities in its territory**, by bringing its technical, legal and financial expertise.

### ***Why choosing schools?***

The selection of the buildings was made with the shared energy consulting service for municipalities, supported by the CAPI. A first analysis led to the pre-selection of twelve buildings, on which a pre-audit was conducted by AURA-EE, that allowed setting up a matrix of issues by action type and by building. Finally, it was chosen to work on five school buildings, belonging to five different municipalities.



*Primary school in Domarin, on the CAPI territory (credit: AURA-EE)*

Schools are buildings with high stakes for municipalities, which must invest in their renovation in order to maintain their quality and their adequacy to educational needs. Because of the intermittent occupation, they are also buildings with good potential for savings in the area of energy management.

The selected schools in the territory of CAPI are the following:

Municipality	Building	Area (m <sup>2</sup> )	Construction date	Heating
Domarin	Elementary school	650	1975	Natural gas
La Verpillière	Jean Jaurès school group	2 200	1970s	Natural gas
L'Isle d'Abeau	Coteaux de chasse school group	2 924	1986	Natural gas
Ruy Montceau	Schools in Montceau (kindergarden + primary school)	937	2000	Oil
Villefontaine	Louis Pasteur school group	2 679	1970s	Electricity

## Which energy savings expect from an EPC ?

The five selected schools were subject to a detailed audit for the purpose of setting up an EPC. This audit, carried out by H3C engineering office, defined three scenarios to propose to the municipalities:

- Scenario 1 “Systems“: renovation of heating systems
- Scenario 2 “Systems and building frame“: renovation of heating systems and work on the frame (> 30% of energy savings)
- Scenario 3 “Low energy renovation“: this type of renovation implies between 50 and 70% of energy savings.

After the presentation of the scenarios, each municipality voted in favour of the one that was the most suited to its needs. The chosen investments and savings percentages are summarized in the table below:

Municipality	Building	Investment k€	% d'économie
Villefontaine	«Louis Pasteur» school group	1 110	77%
L'Isle d'Abeau	«Coteaux de chasse» school group	365	38%
Ruy Montceau	Schools in Montceau	301	25%
Domarin	Elementary school	223	74%
La Verpillière	«Jean Jaurès» school group	261	31%
<b>Total</b>		<b>2 261</b>	<b>51%</b>

Overall, the 5 renovations represent **an investment of M€ 2.261** for a **global energy saving of 51%**. Additionally, 45% of investments concern systems and 55% insulation and joinery.

## ► Take into account local companies and their ability to respond to market needs

In order to determine the capacity of local companies to respond to public building renovation markets in the form of EPCs, CAPI and AURA-EE commissioned ALGOE to:

- **Establish a state of play** of the services provided by companies of the territory that work in the energy renovation sector, by targeting in particular the companies specialised in heating and air conditioning.
- **Evaluate the integration of the offer in the EPC model** through an analysis of opportunities and obstacles around the following three axes:
  - ✓ Response to public procurement
  - ✓ Set-up of consortiums of companies
  - ✓ Commitment on performance guarantees

## ***Key success factors for involving local actors***

This study enabled to identify the following key success factors of the bundled EPC, in order to encourage the participation of local economic actors:

- Critical lot size: 5-6 buildings
- Relatively small geographical area if there are several sites (between 30 and 100 km)
- Lots with similar types of building use
- Standard penalty formulas to allow SMEs capacity building on this type of contract
- Avoid the energy supply in the EPC if the target is SME-type operators
- Duration: firm < 5 years, with a possible option of renewal
- Joint grouping with authorised representative and subcontracting, allowing the access to the micro-enterprises
- Propose a reasonable response time in order to allow the organization of possible consortiums of companies.

## ***Pre-project studies to facilitate market responses***

Pre-projects (simple or detailed) were completed for each school and a baseline consumption was established as a contractual basis for the EPC. These pre-projects were made on the heating and ventilation systems. They have the benefit of offering candidates information on a possible solution, in order to facilitate market responses.

**The proposed principles of the call for tender are the following:**

- Technical specifications for the works should be limited to a performance-based program
- Information about the buildings in their current operational status
- Design of the works by the candidates, who can use the available pre-projects if they wish
- Competitive dialogue, to exchange with the candidates during the tender procedure
- Standard operation (P2, P3, installation management), energy supply not being included
- The Measurement and Verification Plan of the EPC should be based on option C of the IPMVP
- 100% penalty in case of over-consumption and sharing of the outperformance in case of exceeding the energy saving objective

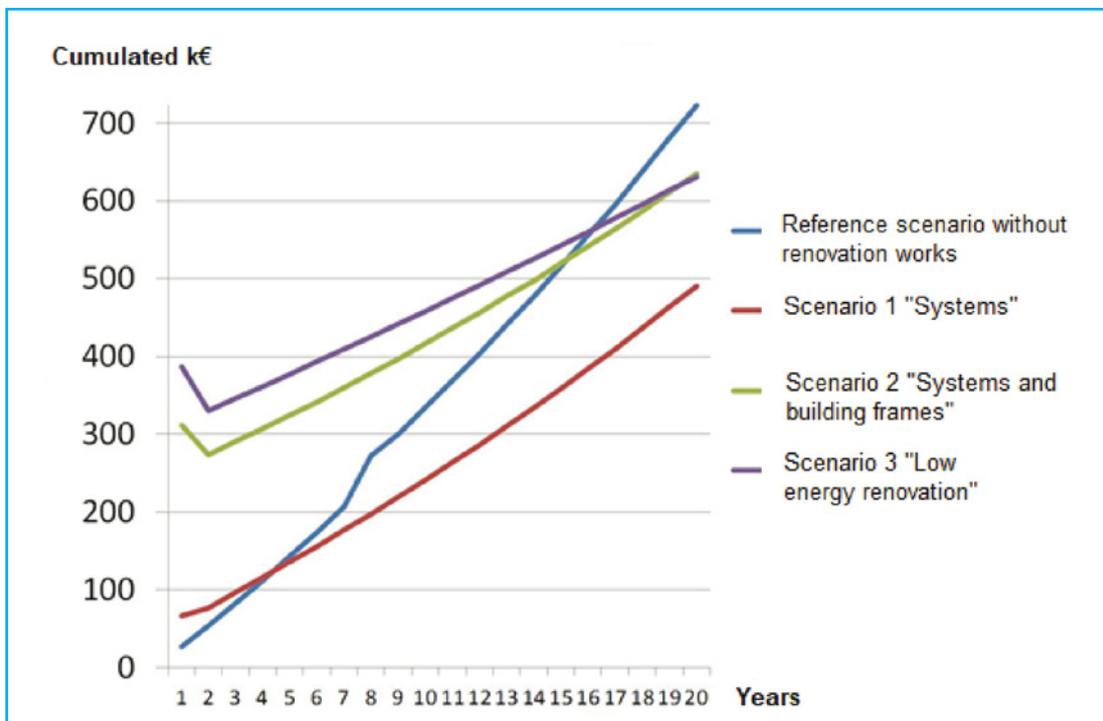
## **Find new levers for financing**

A specific work has been carried out to **research and define the available financing** for each scenario.

It resulted that in 2019:

- Certificates of energy savings can represent 5 to 10% of the investment costs.
- State subsidies depend on the project and on the local authority. They can represent 20 to 30% of the investment costs. The five selected projects in the CAPI territory were eligible for these subsidies.
- Long-term (30 years) and low-interest rate (1.75%) «Ambre» loans, available through the Bank of Territories, for projects aiming more than 30% of energy savings.

Based on this information, AURA-EE conducted a financial analysis of each school renovation project, in order to compare the overall cost of the three scenarios with respect to the baseline scenario (integrating mandatory work only) and taking into account the evolution of energy prices.



An objective analysis of the overall financial report allowed the municipalities to choose between the scenarios. In the above graph (example of the Ruy Montceau school), the reference scenario without a renovation project is represented in blue and it «crosses» scenario 1 «Systems», in red (in less than 5 years), scenario 2 «Systems and building frame» and scenario 3 «Low energy renovation», in purple (in less than 20 years).

## ► Organise a shared portage between several municipalities

Once the buildings have been selected, the estimated energy savings and the procurement conditions defined, the question of the implementation of the projects arose, since the small municipalities involved do not have the necessary means to launch themselves the EPC.



A study has been entrusted to the ESPELIA firm to compare the different ways of pooling the five selected projects: public order grouping or recourse to a SEM (semi-public company), a SPL (local public company) or a GIP (public interest group).

Finally, the choice was made between two solutions:

### 1/ Public order grouping between municipalities

It is a conventional organisation of public procurement, which is temporary because it is linked to a particular contract. It requires that all projects be ready at the same time and that a leader of the grouping be designated. In the CAPI territory, none of the five municipalities involved wanted to play this role.

## 2/ Local public company (SPL)

The fact that a local public company (SPL) can implement mandated projects allows to work without a call for tender between the SPL and its member municipalities. It is an efficient and sustainable organisation, as shown by the example of SPL OSER at regional level.

After discussion, the steering committee integrating the municipalities and the CAPI decided that the first five projects could be implemented by SPL SARA, whose municipalities are already members.

Ce modèle est facilement duplicable, dans la mesure où de nombreux territoires sont dotés de SPL d'aménagement qui peuvent, comme la SPL SARA, diversifier leurs activités en s'engageant dans la rénovation énergétique des bâtiments.

Therefore, SPL SARA plans to use the five pilot projects selected under the STEPPING project, which represent a sufficient business volume, to acquire new skills in energy performance. It will then have the capacity to work in all renovation projects of its member municipalities.

This model can be easily duplicated, as many territories have a SPL-type organisation that can, like SPL SARA, diversify their activities in the domain of building energy renovation.



## PROJECT RESSOURCES AVAILABLE



### Study to support local companies to respond to EPC markets on CAPI territory

This study provides the keys to involve local actors and help them respond to EPC markets. (in French)

<https://bit.ly/2PPvV7N>



### Study on territorial portage operators

This study compares the different ways of pooling the five selected projects: via a public order grouping or by having recourse to a SEM (semi-public company), a SPL (local public company) or a GIP (public interest group). (in French)

<https://bit.ly/2NpfWfj>

### Training «EPC fundamentals for municipalities»

A one-day training course on the EPC fundamentals was created for technical services and technicians supporting municipalities (Local Energy and Climate Agency, local energy distribution service operators, Departmental Directorate of Territories).

Six sessions were organised in Lyon, Saint-Etienne, Aurillac, l'Isle d'Abeau and Valence in France, in 2019.

This training, provided by AURA-EE, is now available for the territories and is complementary to the two-days EPC training for contracting authorities, organised every year by ADEME Auvergne-Rhône-Alpes. (in French)

<https://bit.ly/2pCCHTY>



## Video testimonial of CAPI, the pilot territory of the STEPPING project, on financing energy renovation works

This video, produced with the participation of the Urban Community of Porte de l'Isère, highlights the interest for a territory to have an intercommunal approach for the renovation of public buildings. (in French)

<https://bit.ly/2K04rJ1>



## CONCLUSIONS AND FUTURE PROSPECTS

The STEPPING project has shown the interest of small municipalities in pooling energy renovation projects that concern their public buildings.

This pooling allowed two major benefits:

- To have access to shared engineering
- To define a market for companies of significant size, allowing the use of an EPC (> € 1 M)

In order to interest local SMEs, it is important to help them organise meetings, not to include energy supply in the EPC and to integrate the concept of global renovation.

Moreover, regarding the issue of pooling, a common call for tender for the set-up of an EPC in different municipalities is complicated to manage in France, for political reasons, and also because of the projects' timing. Local authorities should be chosen before the buildings, only if they are ready to undertake this type of procedure.

Finally, choosing a local public company to manage the municipalities' projects seems appropriate for sharing administrative and assistance functions. Also, this type of solution has the advantage of being flexible and has the capacity to integrate other municipalities at any time.

## TO FIND OUT MORE

- The website of the STEPPING project: <https://stepping.interreg-med.eu/fr/>
- The EPC reference website in Auvergne-Rhône-Alpes: [www.cpeauvergnerhonealpes.org/fr/exemples-de-cpe/projet-europeen-stepping.html](http://www.cpeauvergnerhonealpes.org/fr/exemples-de-cpe/projet-europeen-stepping.html)
- Stepping EPC MED community: [www.cpeauvergnerhonealpes.org](http://www.cpeauvergnerhonealpes.org)

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